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ABSTRACT

A study assessed whether training packages gave sufficient focus to attainment of generic skills and examined approaches that can be used to enhance the delivery of these skills so students are better prepared for the new demands of the workplace. A literature review and consultations with stakeholders provided information on development of the Australian training packages and identification of the generic competencies required by industry. Findings indicated that the 7 Mayer key competencies (collecting, analyzing and organizing information; planning and organizing activities; communicating; working with others and in teams; using mathematical ideas and techniques; solving problems; using technology; identifying, analyzing, and applying the practices of culture) were incorporated in all training packages to underpin the competency standards. Three generic competencies (working with others, communicating in the workplace, and following health, safety, and security procedures) were found to be compulsory in 10 industry sectors studied. Good practice in delivering generic skills training was found to be based on provision of a large variety of experiences and learning strategies. Industry supported integration of generic and technical skill development because it was felt to be closer to the real experience of the workplace and provided easier transfer of generic skills to this context. Enterprises selected for good practice tended to have structures in place to promote a learning culture and a commitment to training by managers. Appendixes include the 10 case studies. (Contains 82 references.) (YLB)

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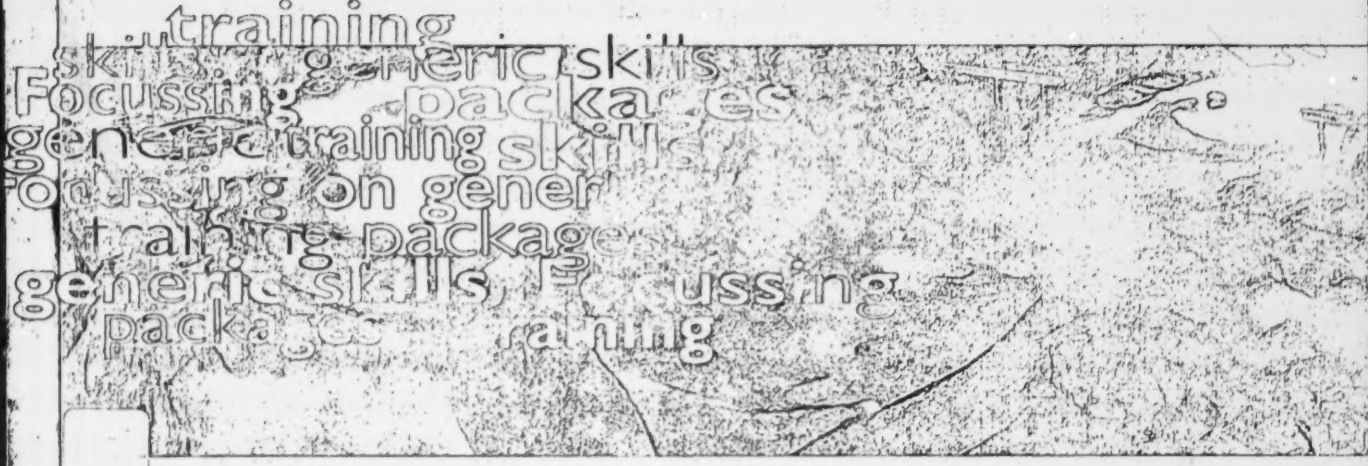

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Susan Dawe

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Executive summary

Purpose of the research

The major purpose of this study was to assess whether training packages give sufficient focus to the attainment of generic skills. The study also examined approaches that can be used to enhance the delivery of these skills so that students are better prepared for the new demands of the workplace.

Collection of information

A review of the literature and consultations with stakeholders provided information on the development of Australian training packages and identification of the generic competencies required by industry. Training packages in ten industry sectors were selected for investigation. Interviews with relevant stakeholders and industry personnel provided information on the approaches used to assist trainees and workers to further develop generic skills believed to be essential for working in these industries. The industry sectors were:

- Administration
- Agriculture
- Australian Red Cross Blood Service
- Civil construction
- Community Services—aged-care work
- Entertainment
- Hospitality
- Information technology
- Metal and engineering
- Retail

Key findings

The research identified a number of key points, which provided support for the conclusion that the training packages have sufficient focus on the attainment of generic skills. It also identified 'good' practice in delivery of generic skills training.

The examination of the training packages found that the seven Mayer key competencies were incorporated in all training packages to underpin the competency standards. However, interviews with teachers and trainers indicated that the performance levels for key competencies are causing confusion. In some cases these performance levels have been totally ignored. A review of the literature indicated that stakeholders have requested more information and explicit examples of key competencies in units of competency and assessment guidelines. These concerns have been addressed in the guidelines for training package developers. In addition, professional development projects for implementing the training packages have been, and continue to be, funded by ANTA and providers.

Core or compulsory units of competency were developed to cover the essential skills for the industry sectors, including generic skills and basic technical skills. Three generic competencies were found to be compulsory in all ten industry sectors. These covered working with others, communicating in the workplace and following health, safety and security procedures. Customer service, professional behaviour, grooming and work ethics, planning daily work routines and developing or updating industry knowledge were also compulsory competencies for a majority of industry sectors.

'Good' practice in delivering generic skills training was found to be based on the provision of a large variety of experiences and learning strategies. These approaches were used to ensure the acquisition of conceptual, technical and generic skills and the transferability of skills to new contexts.

The findings also indicated that industry supported the integration of generic and technical skill development because it was felt to be closer to the real experience of the workplace and provided easier transfer of generic skills to this context. Although combining training in generic and technical skills is a more complex teaching methodology, it is perceived to make generic skills more relevant, which in turn increases the motivation for learning.

In some cases, generic skills, such as specific language, mathematics or learning skills, may need to be taught separately and prior to the delivery of further training in technical or specialist skills. This was particularly relevant to engineering programs where students undertaking specific pathways required more advanced mathematics skills to understand and apply concepts than the majority of students in other streams for which the core competencies had been designed.

Enterprises, selected for 'good' practice, tended to have structures in place to promote a learning culture, and a commitment to training by managers. This ensured that training/learning and assessment were promoted as normal workplace activities to reflect and improve actual workplace performances. All managers and supervisors were also involved in training and assessment.

Typically, there was a qualified workplace trainer in each department or work group and support for learning teams. This enabled a collaborative and guided approach to skills acquisition and provided a mechanism for learning to transfer generic skills to new contexts. It also highlights the importance in the workplace of trained mentors and coaches to support learning.

Where employers are not trained mentors, or the workplace does not exhibit a commitment to training or provide a variety of experiences to support learning, it is important for institution-based trainers to regularly visit the workplace to perform the role of mentor for apprentices or trainees.

Enterprise training managers believed in the importance of integrating approaches for the development of skills, knowledge, values and attitudes in their training. They also emphasised the importance of including all four areas in any assessment of competence. A holistic approach to workplace assessment also enabled a group of related competencies to be clustered. This ensured that the assessment provided valid results.

Training managers also believed that it was crucial to integrate training and practice and to align training with job responsibility. In some cases, competency standards were being used to describe job profiles, and occupational responsibility was aligned with AQF levels.

Recruitment and selection processes were heavily focussed on acquiring new staff or trainees with appropriate generic skills and attributes, especially people skills and personal attributes. The personal attributes that were sought were appropriate values and attitudes because it was felt that these were harder to develop than the specific technical skills required for the job.

Enterprise induction processes emphasised the development of generic skills. These were skills in communication, working as part of a team, customer service, professional behaviour, occupational health, safety and security. Job-specific skills, such as handling of tools and equipment and appropriate hygiene processes were also dealt with in induction programs. At induction, individuals were also informed of the need to take responsibility for their own learning and were provided with information on the qualifications and training they would have to undertake, in their job or to be promoted or to acquire a different position.

One area which seems not to be sufficiently covered in the training packages is information on industrial relations (IR). However, most enterprises included in the induction process information on working conditions and salary, also knowledge on industrial relations, equal employment opportunity and anti-discrimination legislation requirements.

The review process enables continuous improvement of the training packages. Thus the updated and new training packages are including even more information and explicit examples for key competencies, particularly in units of competency and assessment guidelines.

Implications for VET practitioners

A number of implications for the vocational education and training system can be drawn from these findings.

Firstly, training package developers should understand the importance of generic skills in the identification and development of the competency standards. This includes industrial relations, personal attributes, values, attitudes and work ethics.

Secondly, there needs to be adequate professional development processes in place for ensuring that teachers and trainers are provided with training in appropriate methodologies for the delivery and assessment of generic skills. This is to ensure that they provide the variety of experiences and learning activities for students to acquire the conceptual, technical and generic skills required for jobs and for the transferability of these skills to new contexts.

Thirdly, research into the adequacy of the performance levels identified for the key competencies should be conducted.

Fourthly, an examination of the assessment guidelines should be conducted to ensure that they include direction for the assessment of personal attributes, values, attitudes and work ethics. It is also important for providers to identify methods for assessing the key competencies and generic skills which provide valid results.

Introduction

Aim

The aim of this study was to probe the different ways that generic skills are included in training packages to assess if training packages give sufficient focus to the attainment of generic skills. The study also focussed on approaches that can be used to enhance the delivery of these skills in the vocational education and training system so that students are better prepared for the new demands of the workplace.

Background

Workplace reform, initiated by the Labor governments in the 1980s, and the increasing emphasis on global economics has meant that to maintain its competitive edge Australian industries needed to improve work practices. Workplace reform, most commonly understood to relate to industrial relations, is accompanied by a move away from conflict and toward co-operation. It also includes many other developments such as multi-skilling, work organisation and training.

Generic training packages were developed rapidly to meet a need in 1994. These lacked the industry involvement in the development process that is characteristic of the current industry-specific training packages.

> *Prior to the introduction of the National Training Wage Award in August 1994, it was recognised that for many industry sectors, approved training was not available. In order for a traineeship program to be available to an employer wishing to take on a trainee, the generic training packages were developed to cover the gaps in provision.*
>
> *Six generic training packages were designed to cater for three broad industry streams: sales/clerical, manufacturing and services, each having two levels of training, at ASF levels 1 and 2. Each contained generic core modules, a set of generic optional modules and a set of industry-specific modules.*
>
> (Mathers & Saunders 1995, p.14)

Introduction of industry-specific training packages

Since 1998 industry-specific training packages have provided the new foundations for vocational education and training programs in Australia. They brought together through one industry-managed process the previously disconnected approaches to standards, programs, qualifications and learning resources, creating a comprehensive package of tools for learning and assessment leading to nationally recognised qualifications. According to the Australian National Training Authority (ANTA), training packages provide a consistent and reliable set of nationally endorsed components for training and assessing people's skills. They define the attainment and demonstration of skills to the normal expected standard for that industry in the workforce or employment.

Training packages are developed for industry by the national industry training advisory boards (ITABs), recognised bodies or enterprises to meet identified training needs of specific industries, industry sectors or enterpises. All stakeholders must be consulted in the development process. Training packages define a range of pathways, by which people can learn on the job, be formally trained and achieve a national qualification. It also allows existing workers to be assessed against the same competency standards by gathering evidence of competence (that is, recognition of currency competencies).

The new system measures apprentices or trainees against industry competency standards (workplace performance) rather than the outcomes of training courses or the amount of time spent in training.

Emphasising flexibility, user choice now allows employers to select the registered training organisation (RTO), the place and time of training and the content of training. VET-in-Schools programs are increasingly based on training packages.

The first training package was endorsed by the National Training Framework Committee in July 1997. The endorsed components of a national training package include an integrated set of nationally endorsed competency standards, assessment guidelines, national qualifications and customisation capacity. A training package qualification can be tailored to meet the needs of both the company and the individual through adding enterprise-specific language and procedures. Training packages have two primary objectives:

- to increase workplace production through raising skill levels of workers
- to increase career opportunities for those working or seeking employment in the industry

These objectives are achieved through the focus on performance outcomes, increased flexibility and transferability of nationally consistent competency standards and qualifications.

The requisite underpinning knowledge and understanding are integrated into the competency standards. The Mayer key competencies, as they relate to workplace requirements, also need to be built into the competency standards and assessment guidelines. Generic skills are essential for effective participation in work or work organisations. They can be integrated into the learning and assessment strategies as they focus on the capacity to apply knowledge and skills in work situations.

Support components may also be prepared at the national level for a training package. These include learning strategies and resources, assessment materials and professional development materials. Assessment materials may outline suggested strategies for gathering evidence and interpreting the evidence to make an assessment against the prescribed competency standard(s). These may include observation, questioning, practical testing, simulation, written tests and demonstration. They may also include ideas on how multiple units of competency can be assessed in a holistic way. Professional development may also include industry seminars and training on delivery strategies.

Qualifications for trainers and assessors are covered in the Training Package for Assessment and Workplace Training.

Australian Qualifications Framework (AQF)

Under the Australian Qualifications Framework (AQF) there are eleven qualifications levels in the vocational education and training (VET) and higher education sectors (university). Usually only the first six qualifications are issued by the VET sector as shown in table 1.

Table 1: Australian Qualifications Framework (AQF)

VET sector qualifications	Higher education sector qualifications
Certificate I	Advanced diploma
Certificate II	Bachelor degree
Certificate III	Graduate certificate
Certificate IV	Graduate diploma
Diploma	Masters degree
Advanced diploma	Doctoral degree

During 1999, an initial 31 training packages were implemented, involving 150 000 students or 14.3% of all enrolments, and 11.4% of annual hours (ANTA 1999a). By the end of 1999, 50 training packages were endorsed by the National Training Framework Committee. By January 2001, 63 training packages were endorsed (56 industry and seven enterprises). By January 2002, 75 training packages were endorsed.

Training packages represented a modest proportion of total training activity in 1999. However, the proportion of enrolments in training packages increased significantly in 2000 as new students were enrolled in training package qualifications and existing students completed their training or were transferred to the new training packages. In 2000, 408 300 students (up from 150 000 in 1999), or 22.2% of all course enrolments, were enrolled in training packages and 29.3% of annual hours delivered (from 2000 VET data collection, NCVER).

Key competencies and generic skills

In Australia, the seven Mayer key competencies were developed in the early 1990s after consultation with business groups and were defined for school leavers as essential skills for the workplace (Mayer 1992). These key competencies included:

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others and in teams
- using mathematical ideas and techniques
- solving problems
- using technology

In addition to defining the key competencies, Mayer identified three performance levels. Level 1 referred to competent following of instructions, level 2 required selection of the appropriate methodology and resources to achieve the desired outcome, and level 3 involved the creation of new approaches to achieving a specific outcome or improved outcome.

These key workplace competencies were incorporated into secondary and higher education programs, and subsequently into the VET training packages. Although the key competencies have been described as discrete entities it is important to note that they are overlapping and inter-related and are not separate skills or processes (Hager et al. 1996). In reviewing the impact of generic competencies on the workplace performance, Moy (1999) suggested that 'cultural understanding' was required in addition to the Mayer key competencies.

In 1998 the OECD issued an interim comparative report entitled *Transition from initial education to working life*. This report was a thematic review on six countries (including Australia) that were visited by OECD teams during 1997. It defined eight key features that appear to contribute to successful transition, one of which is the 'provision of a broad range of general and vocational skills'. A status report on Australia's current status against the eight features defined by OECD was published by ANTA in late 1999 (McDonald et al. 1999). This report noted the importance of the generic skills within all education and training and the identification of the Mayer key competencies in all training packages.

The Australian report raised the concern that the importance of underpinning knowledge, generic competencies and work-readiness skills were not sufficiently emphasised in the training packages. It suggested that further investigations were needed to determine whether there was sufficient emphasis in the training packages on underpinning knowledge to ensure that it formed the basis of all education and training; and on Mayer key competencies to ensure that all VET graduates have 'well-developed work-readiness skills'. Thus, this research study aimed to investigate the ways that the Mayer key competencies or generic skills were included in the training packages and assess whether there was sufficient focus on the attainment of generic skills. Approaches, which enhanced delivery of generic skills, were to be highlighted in the case studies. A sufficient focus was evident in the training packages when all essential generic skills were identified as underpinning the competency standards (for example, the seven Mayer key competencies) and as separate core or compulsory competencies for each qualification.

Concepts of competence

Competence is a term that is used both scientifically and in everyday language (Weinert 1999). It can be attributed to individuals, social groups or institutions but in relation to preparing a student for future life tasks the focus is on individual competence. The globalisation of trade and the international spread of technology are strong forces driving the need for a global set of key competencies. At the same time, cultural differences among countries play a role in defining the meaning of certain competencies (Levy & Murnane 1999). For example, in countries with relatively homogeneous populations, communication skills and the ability to work productively with co-workers may not be considered critical skills because workers have so much in common. In relatively heterogeneous societies, these same soft skills may be of greater importance because workers need to communicate with and work with individuals who come from different backgrounds, have different cultures and often speak different languages.

The Oxford Dictionary defines competence as 'ability' and competent as 'adequately qualified'. The Macquarie Dictionary defines competent as 'properly qualified or capable', and other synonyms used are 'skilled or knowledgeable'.

For successful performance, motivation may be as significant as competence. Some highly competent individuals may have weak motivation to put in personal effort to translate their abilities into successful performance. This is apparent not only in work performance where individuals may be in the 'wrong job' but also in sport or the arts where highly talented individuals do not perform to their ability.

There are skills and competencies that are useful in many learning situations and in the solution of different problems. These include communication, mathematical skills and nearly all metacompetencies or knowledge about one's own skills and abilities, for example, Seigler and Kotovsky noted the 'ability to learn, to generalize, to go beyond the information given and to use strategies flexibly and appropriately' (Seigler & Kotovsky 1986, p.428). However, as Wienert emphasised, 'key competencies are no substitute for content-specific knowledge, especially when solving more difficult problems' (Wienert 1999, p.29).

Some competencies critical to leading a responsible and fulfilling life may not be critical to economic success, for example, compassion and empathy, whereas values such as honesty and integrity may be critical to a job.

Key competencies critical to economic success

In the opinion of Levy and Murname (1999) the most essential competencies for economic success include:

- basic literacy and numeracy—these are critical to following directions and enable people to acquire job-specific skills
- communication skills and working in teams—the emphasis is now on the ability to relate well to other people, and the importance of communicating effectively both orally and in writing and the ability to work in teams. Those routine tasks requiring little need for significant communication between co-workers or customers have been computerised or with globalisation of trade have been transferred to lower wage countries.
- learning skills—with rapid changes technology and globalisation of trade the ability to learn new things efficiently is essential
- familiarity with computers—in particular familiarity with keyboard, mouse, online help systems and an openness to learning new programs are essential

Capability and competence

A competence is an observable, demonstrable skill, process or performance which can be measured and assessed against set standards (Harris et al. 1995), whereas capability involves the integration of a number of personality traits, as well as competencies. The capability concept is derived from the Social Cognitive Theory and research of Bandura (1986). The core intertwining elements of capability are ability, values and self-efficacy. Ability refers to basic competence (skills, knowledge and attitudes) while values govern the use of ability and are socially derived, for example, co-operation or self-reliance. Self-efficacy describes the way people or organisations judge their ability to organise and carry out actions effectively. It is the motivator for action. These three elements interact with broader belief systems and strategies, such as embracing change, self-managed learning and a general problem-solving approach (Hase et al. 1998).

Stephenson (1992) argues that to be capable, people need 'justified' confidence, which is based on real experience of their:

- specialist knowledge and skills
- ability to manage their own learning and to learn from experience
- power to perform under stress
- communicate and collaborate effectively
- capacity for dealing with value issues—their own and other people's

Methodology

This study aimed to investigate the ways that the Mayer key competencies and other generic skills have been incorporated into national training packages, and to assess whether or not there is sufficient focus on the attainment of generic skills. The study also examined ways to enhance the delivery of these skills so that students are better prepared for the new demands of the workplace. That the importance of underpinning knowledge, generic competencies and work-readiness skills were not sufficiently emphasised in the Training packages was first raised in the Australian National Training Authority (ANTA) report on school to work transition (McDonald et al. 1999).

The methodology for the study included a review of relevant literature, particularly in relation to the development of training packages and generic skills. There was also an examination of training packages, and an investigation of their implementation, in the following industries:

- Administration
- Agriculture
- Australian Red Cross Blood Service
- Civil construction
- Community services
- Entertainment
- Hospitality
- Information technology
- Metal and engineering
- Retail

The training packages were selected to provide examples from industry sectors:

- where competency standards were widely used in all States and Territories in 1999
- displaying the highest enrolments in 1999 (e.g. hospitality)
- with predominantly female workers (e.g. administration, retail)
- with predominantly male workers (e.g. metal and engineering, construction)
- with a professional focus service industry (e.g. community services)
- predominately operating in rural areas (e.g. agriculture)
- with few previous qualifications (e.g. entertainment)
- which reflected emerging industries (e.g. information technology)

In addition, an enterprise-specific training package (e.g. Australian Red Cross Blood Service) was selected to provide an enterprise-specific focus.

Information was gathered through in-person and telephone interviews with:

- ITAB personnel responsible for the development of the selected training packages. These were questioned about the industry's vision for the training package and general feedback that they may have had on the training package.
- workplace trainers/assessors, lecturers and teachers from registered training organisations selected for their reputation for good practice in the particular industry

Contact was first made with the executive officer of the relevant national industry training advisory body, who then recommended those responsible for developing training packages and contacts in State and Territory ITABs or registered training organisations.

A case study for each of the ten selected training packages was developed to highlight good practice in delivering generic skills training.

Findings of the literature review, examination of the training packages and the case studies provided the basis for conclusions, which were derived from the study.

Organisation of the report

The remainder of the report comprises chapters which detail a review of the literature, descriptions of major findings and discussion, conclusions and implications for VET policy and practice. The detailed case studies for each of the ten training packages are provided in appendix 1.

Literature review

The development of training packages

What is a training package?

A training package is a consistent and reliable set of nationally endorsed components for training and assessing people's skills. Training packages are developed for industry by the national industry training advisory bodies (ITABs), recognised bodies or enterprises to meet identified training needs of specific industries or industry sectors. Training packages are progressively being developed in all industry sectors and across industries through a process of reviewing and/or creating competency standards and identifying national qualifications.

The first training package was endorsed by the National Training Framework Committee in July 1997. By January 2001, 63 training packages were endorsed, including 56 developed for industries and seven packages developed by specific enterprises. Training packages define a range of pathways including new apprenticeships, which mean people can learn on the job, be formally trained and achieve a national qualification. In addition VET-in-Schools programs are increasingly based on training packages.

The Australian National Training Authority has identified the main features of training packages as including:

- an integrated set of nationally endorsed competency standards, assessment guidelines and qualifications
- direct assessment of competencies, including gathering of evidence to show competence
- development and delivery of training which suits individual needs or customised training
- learning in a work environment (on the job, work experience, work placement, work simulation or by a combination of methods) which leads to verifiable workplace outcomes
- assessment guidelines on alternative (but equally valid) processes for assessing people with disabilities, people from non-English-speaking backgrounds, indigenous Australian and rural and remote learners
- language, literacy and numeracy workplace needs are built into the competency standards and advice on assessment
- only a registered training organisation whose registration covers all or part of a training package can deliver the endorsed components. The assessment process must involve people with the training package competencies to the level being assessed and the competencies for assessors contained in the Training Package for Assessment and Workplace Training (ANTA 1998; 1999)

Training packages are endorsed for three years. After eighteen months, they must undergo a review, submitting a review report to the Australian National Training Authority (ANTA). Following the review, the training package is revised and enhanced, and after consultation with the industry, the enhanced training package is submitted for endorsement for the next three years.

Training packages may also include non-endorsed components, namely learning strategies, assessment resources and professional development materials.

Training reform

Historically training delivery and the issuing of qualifications in vocational education and training (VET) in Australia developed on a State-by-State basis. The development of a single national system of training and the introduction of the training packages ensures VET outcomes are consistent across the entire Australian

workforce. Training packages bring together through one industry-managed process the previously disconnected approaches to standards, programs, qualifications and learning resources, creating a comprehensive package of tools for learning and assessment leading to nationally recognised qualifications.

Competency-based training

As early as 1985 the term 'competence' was becoming part of the educational debate in Australia. In that year, the Quality Education Review Committee chaired by Peter Karmel described competence as 'the ability to use knowledge and skills effectively to achieve a purpose' (QERC report 1985). Training packages are predicated on the implementation of a competency-based approach to training and assessment. Competency-based training (CBT) was introduced in the late 1980s as part of wider economic policy measures to improve the skill levels of the Australian workforce, enable Australian industry to be more competitive in global markets and establish new career structures for the Australian workforce (NCVER 2000). The most generally accepted definition of CBT is that put forward by the Vocational Education, Employment and Training Advisory Committee in 1992:

> *CBT is training geared to the attainment and demonstration of skills to meet industry-specified standards rather than an individual's achievement relative to others in a group.*

In 1992 Gibb noted a broad definition of competency, referring to the ability to perform 'whole work roles' encompassing the normal expectations of employment, where a number of tasks need to be handled at the same time amid interactions with customers, colleagues or supervisors (Gibb 1992). This competency includes the generic skills intertwined with the technical skills and knowledge, in particular, interpersonal skills and time management skills.

The use of competencies, however, as a means of defining expertise, has been debated for almost 30 years (Blackmore 1999). This includes debates on what constitutes generic competencies or generic skills, soft skills, transferable skills or transferring skills. Expertise was felt to include in-depth knowledge, reflectiveness and intuition. Therefore questions arose about the use of only two levels of performance to describe the results of training (that is, competent or not yet competent) in competency-based assessment. The lack of gradations or the problem of the binary nature of competencies is ongoing. Dreyfus and Dreyfus (1986) developed a five-stage model of competence, with stages of novice, advanced beginner, competent, proficient and expert describing the status of learners and existing professional and industry workers.

Wenger (1998) believes that learning transforms who we are and what we can do and is not just an accumulation of skills and information. Thus learning needs to transform our identity if it is to encourage innovation and lifelong learning.

Gonczi (1998) believes that what is required in vocational education is not a narrow performance-based approach to competence but an integrated approach which does not make a distinction between knowing and doing. According to Gonczi, 'the capacity to bring together knowledge, values, attitudes and skills in the actual practice of an occupation is the kernel of the integrated concept' (p.36)

Dickson and Bloch (1999) in evaluating the use of competency-based assessment (CBA) noted four issues related to CBA emerging consistently. These key issues were grading, skills versus knowledge, quality and resources. Participants in this study wanted grading to define strengths and weaknesses of employees/learners, assessment to be inclusive of underpinning knowledge, skills, attitudes and ethics, improvement in assessor training and a review of current resources to make them more efficient and effective.

James (2000) adds to the criticism of competency-based training with examples of CBT (and its assessment) being too technical, narrow and restrictive, and thus not tending to develop the innovators. This reflects the tension between formal 'education' and 'training', where acquiring knowledge or 'theory' is separated from skill development or 'practice'.

The need for training packages

A review of the previous government's training reform agenda, conducted by the Allen Consulting Group (1994) and commissioned by the Australian National Training Authority (ANTA), had shown that the implementation of CBT and other reforms by the training system was not meeting the requirements set down in the competency standards.

The Allen review had presented findings which showed that employers wanted less prescription and more flexibility for users of the nationally endorsed competency standards. The National Training Framework was

subsequently created to introduce arrangements for a more flexible and industry-relevant regulatory environment. It was overseen by the National Training Framework Committee (NTFC), which also endorsed assessment guidelines and related VET qualifications. The NTFC advised ANTA on policies to ensure that training outcomes were nationally consistent in quality and met the needs of industries. Under the NTF, responsibility for determining national VET qualifications resided with the industry bodies rather than through the accreditation of courses by State training authorities. Although competency standards continued to play a critical role, they then became incorporated into a specific component of the new training packages.

The Allen review also argued that what was required to get enterprises to participate in the reforms was to increase their role in making decisions about where they 'bought' their training for the off-the-job component for their apprentices or trainees. Thus the 'user choice' initiative was introduced for training which was delivered under contracts of training or training agreements. According to the Allen review, this would signify a shift from a supply-driven approach to training towards a demand-driven approach.

Key competencies were developed to detail the necessary skills and attributes all young people should have on entering the workplace (Mayer 1992). These were to be incorporated into secondary and higher education programs. The guidelines for the development of training packages insist on the incorporation of the key competencies into all new vocational education and training programs (ANTA 1999).

In 1998 the Organisation for Economic Co-operation and Development (OECD) issued an interim comparative report entitled *Transition from initial education to working life* (OECD 2000). This report is a thematic review of six countries (including Australia) that were visited by OECD teams during 1997. It defines eight key features that appear to contribute to successful transition, one of which is the 'provision of a broad range of general and vocational skills'. A status report on Australia's current status against the eight features defined by OECD was published by ANTA in late 1999 (McDonald et al. 1999). This report notes the importance of the generic skills within all education and training and the identification of the Mayer key competencies in all training packages.

The theory behind training packages

In the training packages 'the concept of competency is the specification of knowledge and skill, and the application of that knowledge and skill to the standard of performance required in the workplace' (ANTA 1999b, p.10). The concept of competence thus relates to observable behaviour, which is similar to the concept of 'behavioural competencies' in the models developed by McClelland (1973) and described in detail by Spencer and Spencer (1993). The competency standards are the foundation of competency-based assessment (CBA). Defining the standard to be achieved as the 'workplace standard' requires assessment against the standard (unit of competency) either in a workplace or a simulated workplace.

The emphasis on workplace competencies identified in the training packages can be, in part, traced back to the traditional focus on learning in realistic work settings. For centuries, the craft or trade skills were passed from master to apprentice. This formed the basis of an apprenticeship system, which emphasised guided participation in the real activities of a particular workplace. Similarly, other skills were taught on the job or learnt in the home. The industrial revolution brought about new industries and occupations. Education and training to prepare workers for jobs changed to meet these new requirements. Twentieth century Australia witnessed an increasing emphasis on formal learning in educational institutions and on the acquisition of formal certificates to signify successful completion of training and qualifications.

This approach to learning in institutions was in keeping with the prevailing view that general thinking processes were the main goals of formal learning. However, the major professions of law and medicine always required extended periods of informal learning in realistic work situations before novices could be admitted to professional status. A strong professional body controlling enrolment and graduating numbers ensured all medical students completed two years of practical training working in a hospital. Similarly, lawyers traditionally completed one year of training in a law firm.

Constructivist theory of learning

Although training packages define outcomes, and not the process of learning, they would appear to align more closely to the contructivist theory of learning, which emphasises problem-solving, and assumes that learning best takes place within a particular context. Billett (1994) discusses the relationships between doing, knowing and learning and illustrates some of the complexities. He believes that it has now been recognised that learners play an active role in their own development and this has displaced the previous behaviourist

view that learners were like empty vessels to be filled with knowledge that somehow enabled them to perform specific skills.

As individuals bring to their learning a social and historical context, and a unique memory, which is dependent on their experiences, interests, values and emotions, Billett (1994) believes that a 'constructive' view of learning emphasises active and interpretative knowledge acquisition. In other words, individuals seek to 'make sense' of what they see and experience (von Glaserfield 1987). Billett also notes that the amount of effort expended by individuals to learn something will be related to their values and attitudes, that is, their evaluation of whether it is worth the effort.

Billett (1996) proposes a model of workplace learning where learning rather than teaching should be the major activity. The core of his model is goal-directed learning activity in the workplace. He advances a constructivist view of learning, which emphasises problem-solving as a means to construct, organise, index and extend knowledge. Problems can be categorised as routine and non-routine. However, it must be acknowledged that a non-routine problem for one individual may be routine for another and vice versa.

Billett (1996) proposes that the processes involved in learning, problem-solving and transfer are similar. They require an individual to interpret and construct the problem or new situation. This interpretation is influenced by how, when and where the knowledge was gained, how prior experiences are organised in memory, and how these are retrieved.

Billett (1999a) discusses the four elements of the collaborative and guided approaches to learning which are central to his model of workplace learning. These include having in place a logical sequence of workplace activities of increasing complexity and accountability, making accessible to the learner the goal or product of the workplace activities, enabling learners to be guided by more expert fellow workers, including mentors and coaches, and providing for learners to receive indirect guidance through activities like listening to and observing other workers. He emphasises that there must be guidance to help learners avoid inappropriate knowledge, make accessible what is hidden, sequence activities appropriately and provide ongoing opportunities for joint problem-solving.

Natural settings versus formal learning settings

Billett (1996) believes that the workplace is a natural setting for workplace learning since this is the place where problem-solving occurs and the forms of knowledge required can be constructed. He emphasises that there is an additional benefit of having the workplace as the setting. In engaging in routine problem-solving activities, learners experience reinforcement of their existing knowledge. The push for workplace learning involved the following factors:

- a natural setting
- restructuring of industry and industrial awards
- increased demand
- multi-skilling of workers
- opportunities for existing workers

Resnick (1987) criticised the use of highly specific learning situations because the learning may become bound to that setting (for example, the workplace), and not transfer to other situations. Billett (1999b) suggests that considering workplaces as sites for learning in part avoids the problem of transfer from the classroom to the workplace. However, Billett (1998) warns that it cannot be assumed that this knowledge will transfer easily from one situation to another, either in the same workplace in a different context or to another workplace. It appears that it is the problem-solving activities engaged in by learners, and the guidance provided to them which will determine the possible transfer of the knowledge. Billett (1999c) notes that workers reported that although they learnt different things from both their educational setting and through their workplace experience both settings provided conceptual and practical experiences. He emphasises that it is the variety of experiences, and not necessarily the learning setting, which is important in development of expertise. The novice and more experienced worker may need quite different approaches and learning strategies for their training in the workplace (Cornford & Beven 1999). Informal workplace training and learning is very common as work and learning are inextricably interlinked (Harris et al. 2000). In their analysis of the role of the workplace trainer Harris et al. contacted 350 enterprises and identified five main functions, including building an enterprise learning culture, and 32 different 'trainer actions' used by participants in the study.

Flexibility in delivery and assessment

A key goal of governments in the last decade has been to increase the amount of training sponsored by enterprises. Increasing ownership by industry of the competency standards and qualifications was seen as a way of encouraging more employers to deliver accredited training in the workplace. Billett(1999b) notes that small businesses do not believe it is in their interests to invest in VET. Hence, small businesses require incentives, customised information and less inhibiting administrative structures to overcome other priorities and their preference for recruitment of already trained staff rather than training staff themselves. Similarly in the emerging information technology sector employers want to recruit experienced staff, rather than train staff, and thus there is high mobility in this sector.

The new apprenticeship system has been expanded and been further subsidised by the Australian government to assist employers train in the workplace and alleviate skill shortages, particularly in the information technology and telecommunications industry.

Partnerships between industry and registered training providers are encouraged, especially as assessment in the workplace or simulated workplace is required for most of the units of competency in the training packages. In addition, VET-in-Schools programs have also increased the partnerships between schools and industry and/or vocational education providers and adds to the move to de-institutionalise education and training in the 21st century.

The national VET training system, through training packages, encourages multiple pathways for delivery of VET training through a choice of public and VET providers, VET-in-Schools, work and a combination of on-the-job and off-the job training through new apprenticeships, as well as assessment-only pathways. Training packages have highlighted competency-based assessment and allowed many existing workers to obtain recognition of current competencies (RCC) to validate existing competencies, gained through life experiences or work, and assist them to obtain VET qualifications. This may encourage a shift to a culture of training in the workplace, and engagement in further workplace learning and lifelong learning for the individual, including higher education. In some industry sectors, for example, the entertainment industry, there were almost no VET qualifications available before the training package was introduced.

The training package, through the assessment of outcomes, encourages the use of a variety of learning strategies. Spencer and Spencer (1993) noted four theories on how people learn and change, which included the following:

- Adult Experiential Education Theory
- McClelland's Theory of Motive Acquisition
- Social Learning Theory
- Self-directed Change Theory

Some people are inspired to learn (or do something differently or change) by an experience of their own or perhaps by observing someone else's experience. Experiential learning can be used in some industry sectors, for example, to allow training participants to feel directly what it is like to be the client for a hairdresser or to be an aged-care hostel client for a day. Social learning, for example, role modelling, observing and imitating, is used, especially by young children and adolescents, and is the basis of the mentoring or coaching strategies. The information gathered from the experience, or observation of other people's experience, only becomes a learning experience once there is an opportunity to reflect on it, relate it to some theoretical concepts and apply it. However, this may not always happen in the classroom.

Down (2000) identifies thirteen learning strategies derived from recent VET research. Each individual has their own motive to learn and a preferred learning style. In teaching to all learning styles lecturers/teachers have found a need for a variety of teaching methods such as group problem-solving, brainstorming activities, practise written exercises, exploration of applications or design projects, in addition to presentation of basic information.

Kolb (1984) developed a Learning Style Model to classify the way students take information in and how they internalise information. Some people can start with the theory (abstract concept) and apply it in their own life. Others prefer to start with an activity (concrete experience). To some it only becomes clear through a discussion with others or reviewing it themselves (reflective observation) and to others it is clarified when they engage in active experimentation. Kolb concludes that the point at which the learning becomes interesting reflects a preferred learning style. However, the learning process is not complete until it has passed through the whole cycle (experience – reflection – concepts – doing – new experience). The knowledge or concepts

may be learnt in a lecture, from a book or from online delivery but the competence can only be demonstrated in the application of the learning to a relevant task.

The challenges

Staff development

One of the major challenges for the successful implementation of training packages relates to staff development. Down (2000) highlights that 'the introduction of training packages within the National Training Framework in 1997 has resulted in a shift of much of the responsibility for the provision of detailed curriculum and support materials from the State to the individual training provider' (p.7). Hence staff development is a particular challenge, particularly for TAFE institutes, but also for workplace trainers and assessors. ANTA has funded staff development programs, such as *Framing the future*, *LearnScope* and *Reframing the future*. There are examples of staff and institutions being innovative and entrepreneurial, for example, the WorkSmart Initiative (WA STB 2001). ANTA and national ITABs have also funded support material for use with the industry training packages.

Using appropriate evidence-gathering methods for assessment is challenging but these methods must be gender and culturally inclusive and take into account the language, literacy and numeracy skills of both the assessee and the assessor. Professional development of trainers and assessors is required in evidence-based assessment methods. It is important for an individual student or employee to maintain a portfolio of evidence for competencies. Assessment of the Mayer key competencies can be integrated and specifically assessed, for example, the innovative, computer-based key competencies Assessment Strategy being used at Torrens Valley Institute of TAFE (Denton 2000). Information-sharing and networking opportunities need to be increased for staff to refine competency-based assessment practices.

Training packages

The workplace competency standards must be kept up to date to accurately reflect the skills required by industry. This means that competency standards must be regularly reviewed. At present training packages are endorsed for a three-year period requiring a review to commence after 18 months. However, industries such as the information technology industry, and innovation in general, may require changes to competency standards at a faster rate.

There is also an important balance between job-specific and generic skills, which needs to be achieved. Learners must have both conceptual and experiential knowledge to continue to grow and develop. Educational experiences to support learners must therefore develop both job-specific and generic skills.

The integration of key competencies into training programs must ensure that they can be identified. The key competencies must be intertwined through the workplace competencies in such a way that the key competencies are explicit and the learning experiences support the learner in the development of the key competencies. The assessment tasks need to reflect the development of the generic skills as well as the job-specific skills.

The key competencies reflect generic skills, which are believed to be transferable between industries and occupations. Hence this transferability of learning outcomes must be indicated in pathways to assist those who need to change careers. To assist with career changes there should be credit transfer and recognition of prior learning between training packages.

Training providers

Competency-based assessment to workplace standards requires either a workplace or a simulated workplace context. In some sectors this has been accepted for a very long time and training providers have provided simulated workplaces, for example, the engineering workshops, or more recently, training restaurants for the hospitality courses. In other areas, participants in VET training courses are expected to already have a workplace either by being in employment or working as a volunteer. The challenge for training providers is to find suitable work placements for all students or provide simulated workplaces. Simulated workplaces are required for those students who are not able to be placed with employers at that time due to personal, family or work commitments or where suitable industry sponsors are not available (for example, in new industries, regional areas, or distance education). Simulated workplaces, such as practice firms, are increasingly being used for delivery and assessment of some competencies under the Administration, or the new Business

Services training package and the Information Technology training package. Industry and community partnerships are being negotiated in other industries.

It will certainly be a challenge for TAFE and other registered training organisations to implement the training packages for students who are not employed, or employed in work which is not related to their courses. This is related to the challenge of transferability to assist career change as both these groups of learners need flexible arrangements to enable them to start on a pathway to a qualification under a training package without already being employed in that industry or occupation.

It is essential for both workplace- and institution-based training to ensure a large variety of learning strategies and experiences if learners are to develop conceptual knowledge, procedural knowledge and reflectiveness to attain high performance expertise. Down (2000) identifies thirteen learning strategies derived from recent VET research. The new guideline advice, as suggested by Down (2000), will be included in the ANTA Training Package Developers Handbook. The advice by Down (2000) also noted that applications using key competencies need to be more explicit in the performance criteria and hence the assessment.

There is also a challenge in forming and maintaining partnerships between workplaces and VET providers. However these partnerships are essential to extend educational experiences for students, trainers, workers and workplace supervisors. Partnerships are needed to address training in generic skills and skills for adaptability and flexibility.

There will be a challenge for all enterprises to ensure a culture of training is promoted throughout in organisations. In some workplaces there may be a culture of workers being protective of their own jobs. Historically some workers were unwilling to pass on knowledge for fear of displacement by those to whom they have passed on knowledge. The establishment of a workplace learning culture should also assist multi-skilling, teamwork and transfer of skills to other contexts.

There is a challenge for small businesses to be involved in training in general and employer-based training in particular. Some small employers are not suitable for student work placements as they lack the expertise to assist development of the learner's knowledge or the ability to provide the range of experiences required. In addition workplace mentors or coaches need appropriate training to assist with the learning strategies which may be needed to develop the skills and knowledge of the learners. Work placements must also balance the personal attributes of the learner to the needs of the employer so that the partnership is effective.

A shift in focus for generic skills

Many names for the same thing or a broader framework

There is a resurgence of interest in generic skills stemming from the impact of globalisation and new technologies and the requirements of the knowledge-based new economy. This is illustrated most recently by Joyce (2001) who writes 'Generic skills, soft skills, behavioural skills, enterprise skills, key competencies, core skills, employability skills, people skills—many names for the same thing. Basically, they can be defined as those skills that are common to many vocations and are not specific to one job or industry.' (Joyce 2001, p.28). Communication, teamwork and problem-solving are examples of generic skills.

Since the identification of the workplace competencies in Australia (Mayer 1992) economic changes and new technologies have impacted on most individuals and enterprises. For example, the internet and e-commerce are now recognised as part of regular communication for many businesses. Computer skills are increasingly becoming essential for everyone. For the knowledge-based new economy there is also a compelling case for enterprise, innovation and creativity skills to be identified as essential generic skills. Knowing how to learn or learning to learn is identified as a basic skill required by all individuals if they are to achieve all other basic workplace skills and life skills (Carnevale & Carnevale 1997). These skills will also be essential if individuals are to maintain their employability in a changing environment.

In the old economy the emphasis was on productivity and producing more goods and services with fewer resources. Now people want goods and services tailored to their particular needs. They also want the latest products and services and so the emphasis is on innovation (Carnevale 1995). Hence employees need more skills, particularly skills related to working in a team (Cappelli et al. 1997). In addition the new service industry sectors require a specific set of skills if they are to maintain their market advantage. As Carnevale and Desrochers (1999) state 'the new service-oriented manufacturing economy and growing services economy demand a more complex set of performance standards. They include quality, variety, customisation, customer focus, speed of innovation, and the ability to add novelty and entertainment value to products and services' (p.33).

Learning skills

Reading, mathematical skills, and communicating effectively both orally and in writing have always been basic to the formal learning that occurs in schools. More recently, however, familiarity with computers, group work, and learning skills, such as self-assessment and research skills, have also been emphasised in Australian schools. Carnevale and Carnevale (1999) note that in the workplace 'learning skills are required in order to respond flexibly and quickly to technical and organizational change; make continuous improvements in quality, efficiency, and speed; and develop new applications for existing technologies, products and services' (p.20). They also believe that to be competent in learning, workers need to demonstrate their ability to assess what needs to be learned, apply learning techniques, and use the new learning on the job. Existing workers may require an introduction to alternative learning styles, self-assessment and specific industry training.

Kearns (2000) has completed a recent review of the research relating to generic skills which compares the development of key competencies, core skills, workplace know-how or essential skills in the United Kingdom, United States of America, New Zealand and Australia. He notes that the OECD has commissioned a four-year project on the selection and definition of generic skills (DeSeCo). The Kearns' review has followed the approach by the British National Skills Task Force (NSTF 2000) in defining generic skills in the following terms:

> *Generic skills—those transferable skills essential for employability which are relevant at different levels for most.*

The NTSF (2000) highlighted the critical role of the generic skills identifying core 'key' skills and a broader set of transferable skills which are generic to most work.

Key competencies in Australia

The key competencies were developed to detail the necessary skills and attributes all young people should have on entering the workplace (Mayer 1992). These workplace competencies were to be incorporated into secondary and higher education programs, and subsequently into training packages (ANTA 1998).

The Mayer definition of the key competencies provides an important perspective on the role of general competencies in work. According to Mayer:

> *Key competencies are the competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. Key competencies are generic in that they apply to work generally rather than being specific to work in particular way in particular occupations or industries.* (Mayer 1992, p.5)

Mayer identified seven major areas of essential workplace competencies. These include:

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others and in teams
- using mathematical ideas and techniques
- solving problems
- using technology

Definitions of these competencies appear in table 2.

As well as outlining the skills and attributes comprised in each of the key competency areas, Mayer identified three competency performance levels. Level 1 referred to competent following of instructions, level 2 required selection of the appropriate methodology and resources to achieve the desired outcome, and level 3 involved the creation of new approaches to achieving a specific outcome or improved outcome. The performance levels are described in table 3.

Table 2: Mayer key competency definitions

Collecting, analysing and organising information	The capacity to locate information, sift and sort information in order to select what is required and present it in a useful way, and evaluate both the information itself and the sources and methods used to obtain it.
Communicating ideas and information	The capacity to communicate effectively with others using the range of spoken, written, graphic and other non-verbal means of experience.
Planning and organising activities	The capacity to plan and organise one's own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance.
Working with others and in teams	The capacity to interact effectively with other people both on a one-to-one basis and in groups, including understanding and responding to the needs of a client and working as a member of a team to achieve a shared goal.
Using mathematical ideas and techniques	The capacity to use mathematical ideas, such as numbers and space, and techniques such as estimation and approximation, for practical purposes.
Solving problems	The capacity to apply problem-solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident and in situations requiring critical thinking and a creative approach to achieve an outcome.
Using technology	The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.

Table 3: The three key competency performance levels described by Mayer

Level 1	The competence needed to undertake activities efficiently and with sufficient self-management to meet explicit requirements of the activity and to make judgements about the quality of outcome against established criteria.
Level 2	The competence needed to manage activities requiring the selection, application and integration of a number of elements and to select from established criteria to judge quality of process and outcomes.
Level 3	The competence needed to evaluate and reshape processes, to establish and use principles in order to determine appropriate ways of approaching activities, and to establish criteria for judging quality of process and outcome.

Other possible generic competencies had also been considered by the Mayer committee. These included;

- cultural understanding (also included by New Zealand and the United States)
- languages other than English (LOTE) (also required and identified as a modern language by the United Kingdom)
- 'having the right attitude'

During the Mayer committee's preliminary industry validation study, where representatives of business were consulted for their workplace competencies, other suggestions for generic skills and competencies to be included were put forward. These were:

- motor skills (dexterity)
- creativity
- health (physical fitness) (identified as physical skills, and added to essential skills in New Zealand)
- ethics
- customer service skills

Field and Mawer (1996) have also developed a skills requirement model using research involving 15 high performance enterprises. These high performance enterprises were organisations, which were frequently linked with best practice and workplace change. From this data Field and Mawer (1996) identified nineteen possible generic skills that were not included in the original Mayer key competencies. These are listed in table 4. They dealt with personal attributes, empowerment, advancing communication skills, and understanding systems or cultures.

Rather than just adding these skills to the Mayer list of key competencies, Field and Mawer went on to suggest that generic skills cannot be considered in isolation from the other factors that contribute to individual, team and enterprise performance. They advocate a broader and more holistic model in which

employees, to be effective, required the key competencies in combination with other skills and attributes. These included:

- an intellectual and attitudinal core
- routine technical skills
- learning skills
- empowerment

Table 4: Possible generic skills not included in the key competencies

◆ making decisions	◆ understanding organisational culture
◆ delivering results	◆ negotiating
◆ thinking creatively	◆ planning for tomorrow
◆ focussing on customers	◆ setting goals
◆ understanding systems	◆ adding value
◆ managing change	◆ being confident
◆ improving own performance	◆ applying business acumen
◆ understanding other cultures	◆ listening
◆ speaking a foreign language	◆ writing with impact
◆ sharing leadership	

In reviewing the findings and recommendations from pilot projects in the VET sector and workplaces, Hager et al. (1997) identified six core principles for integrating generic competencies. These include the following:

1 Key competencies can be learnt and should be taught.

2 Key competencies are overlapping and inter-related, rather than discrete processes with three clearly identifiable performance levels, as conceptualised in Mayer.

3 Key competencies should be viewed as both outcomes and as processes (involving 'enabling' or underpinning knowledge) necessary for more complex learning tasks and work performance.

4 Key competencies are developed throughout life and have lifelong relevance.

5 Key competencies must be contextualised in authentic and simulated environments.

6 Key competencies should be integrated explicitly and systematically with technical competencies within all phases of training cycle.

Jasinksi (1996) noted that other skills might be important for effective workplace performance, especially beyond entry-level positions. Specific additional skills identified by Jasinski were:

- cultural understanding, which was viewed as a significant access and equity issue and requiring further exploration
- entrepreneurialism, or proactivity in identifying and capturing opportunities
- learning competencies, given the trends towards lifelong learning and the learning organisation
- intrapersonal and self-awareness competencies that underpin professional competencies

Marett and Hoggard (1996) also highlight the importance of linking the key competencies with learning transfer and the notion of lifelong learning. They suggest that the key competencies provide a framework which assists the development of learning skills. They believe that people learn best when they actively create their knowledge by identifying the structures and principles that underpin their actions. This is assisted by the process of reflection by the learners of their own learning. Although learning to learn is not explicitly included in the key competencies, learning skills are recognised as essential in developing generic skills and in their transfer.

In reviewing the impact of generic competencies on workplace performance Moy (1999) suggested that, although different combinations of the key competencies were required in different workplace contexts, the key competencies represent a satisfactory set of generic skills. However, she believed that 'cultural understanding' was also required. Moy (1999) believed that it would be better to research and promote a broader and more integrated approach to workplace performance than to redefine the key competencies. Her view was that generic competencies are one important element for effective workplace performance by individuals and teams. Other elements include the learning capacities, the attitudes and proactivity of the

individual, and applying technical and generic skills in an integrated way. The workplace context also provides elements, which affect the performance of the employee.

Generic capabilities and generic abilities

The five-university Australian Technology Network (ATN) Teaching and Learning Committee has steered a teaching and learning initiative on *Generic capabilities of ATN university graduates* (Bowden et al. 2000). The generic capabilities represent a range of outcomes including communication capability, the capability to work effectively with other people and the capability to work with a global perspective. The nine generic capabilities are listed in table 7. A four-level, three-dimensional model for capability outcomes has been developed. Thirteen case studies are available on the project website.

The innovative initiative of the Western Australian State Training Board (WA STB 2001) called WorkSmart, is a major contribution to the implementation of the National Training Framework. The purpose of the WorkSmart Initiative is to build the capacity of the WA VET sector and raise the profile of business literacy skills, enterprise values and generic abilities, contained within training packages. The WorkSmart Initiative stems from industry group reports and research commissioned by the Western Australian State Training Board. The WorkSmart Initiative aims to foreground the generic, intangible aspects of competency in training packages using project-based learning as its primary implementation vehicle. The *under the surface* aspects of competency in training packages are to:

- maximise business literacy and understanding of enterprise values
- develop interpersonal effectiveness: networking, teamwork and customer focus
- facilitate personal responsibility for learning, work performance and employability

To ensure these aspects of competency are addressed, the WorkSmart Initiative centres on the profiling of 20 ability attributes (or generic abilities). These abilities are compiled from a range of competency standards in training packages and are based on the board's research findings. The WorkSmart Profile is clustered around five key learning outcomes:

- understanding business reality
- learning to work smarter or harder
- using teamwork to advantage
- dealing effectively with customers
- understanding the importance of communication skills

Industry, in partnership with training organisations, has the opportunity to nominate the learning outcomes that are important to their work environment. The WorkSmart Profile is shown on page 24 and these twenty generic abilities are also listed in table 8 as comparison with lifelong learning and employability skills.

Employability competencies and lifelong learning

Kearns (1999) argues in the discussion paper on *Lifelong learning* for a new humanism in VET, which has a focus on people, as a way of investing in human intellect, imagination and creativity. Kearns believes that including the Mayer key competencies in VET courses and training packages has been valuable. However, he questions whether they include all the generic skills that are relevant to learning-to-learn in the workplace. Those skills required, beyond the learning skills developed at school, relate to personal development and attitudes to learning, cross-cultural understanding for learning in a globalised society, and the need for a more creative and innovative workforce.

WorkSmart Profile

No.	Ability	Ability statement (at AQF III)	
		Personal processes	
1	Employability	Take personal responsibility for own lifelong learning, work performance and employability	Self-management
2	Positive attitude	Display confidence and a positive attitude	
3	Flexibility	Adopt a flexible approach to work	
4	Environmental	Assume personal responsibility for the work environment	
5	Prioritising	Manage and prioritise multiple tasks and responsibilities	Task management
6	Resource use	Use resources effectively in organising own work schedules	
7	Proactive approach	Use initiative to change unproductive work practices	
		Interpersonal processes	
8	Teamwork	Adopt a team approach to work processes	Work relationships
9	Networking	Develop networks to share ideas and influence change	
10	Building relationships	Build and maintain constructive relationships	
11	Meeting expectations	Clarify job roles and meet the expectations or others	
12	Customer focus	Provide quality service to customers	
		Organisational processes	
13	Initiative	Deal with irregularities and unforeseen difficulties	Contingency management
14	Adaptability	Adjust to new demands or unexpected situations	
15	Problem-solving	Resolve workplace problems using innovative solutions	
16	Forward planning	Anticipate possible outcomes and plan for contingencies	
17	Systems thinking	Contribute to quality systems and continuous improvement processes	Business orientation
18	Commitment	Commit to sustainable practices and identify opportunities for reducing waste	
19	Efficiency	Minimise costs and increase productivity and enterprise efficiency	
20	Creativity	Introduce new ideas and develop creative approaches to gain competitive advantage	

Kearns (1999) adapted the profile of a lifelong learner developed by Candy, Crebert and O'Leary (1994) for the university sector. This profile identified six characteristics or generic skills and is shown in table 5.

Kearns (2000) notes that the range of generic skills required for lifelong learning and employability include the key competencies, as well as personal attributes and increasingly an additional modern language. The qualities and competencies which promote employability include:

- values and attitudes compatible with work—including a desire to learn, to apply learning, to adapt and to take advantage of change
- basic skills (literacy and numeracy)
- key skills (communication, application of number, information technology, improving one's own learning and performance, working with others, problem-solving) sufficient for the needs of work
- other generic skills that are becoming increasingly 'key'—such as a modern language and customer service skills
- up-to-date and relevant knowledge and understanding
- up-to-date job-specific skills
- the ability to manage one's own career

Table 5: Profile of the lifelong learner

An inquiring mind and curiosity	Has a sense of curiosity and question asking
	Has a love of learning and discovery
	Has reflective habits
	Can apply strategies to enhance creative resourcefulness
Helicopter vision	Has a sense of the interconnectedness of things
	Is able to apply systems perspectives and 'see the big picture'
	Has the capacity for strategic thinking
	Has vision that goes beyond own job or field of study
A repertoire of learning skills	Has learning-to-learn skills
	Knows own strengths, weaknesses and preferred learning styles
	Has a range of strategies for learning in various contexts
	Is able to learn from others in teams
	Understands different kinds of learning
A commitment to personal mastery and ongoing development	Has motivation, a desire for learning throughout life, and confidence in own learning capability
	Has commitment to ongoing personal and career development
	Has self-esteem and a positive concept of self as capable and autonomous
	Has the capacity to deal with change
Interpersonal effectiveness	Has the ability to learn from others in teams
	Has the ability to give and receive feedback in team-learning situations
	Has a group orientation and can contribute to team learning
	Has cultural understanding and can learn in situations involving cultural diversity in Australia and overseas
Information literacy	Has the ability to locate, evaluate, manage, and use information in a range of contexts
	Can use modern information technologies for these purposes
	Has a good sense of knowledge acquisition and generation, and can contribute to turning workplace learning into shared knowledge

McClelland's behavioural competencies

Former Harvard Professor of Psychology, David McClelland (1973) was interested in the characteristics of the people who did a job well. His research into motivation in the early 1970s is the basis for the behavioural competency model used for the last 25 years by many of the world's leading companies with a reputation for excellence in leadership development. In discussing the behavioural competency model, Spencer and Spencer (1993) defined a 'competency' as an 'underlying characteristic' of an individual, such as motive, trait or self-concept, that predicts 'skill behaviour actions, which in turn predict job outcomes'(p.12). 'A characteristic is not a competency unless it predicts something meaningful in the real world' (Spencer & Spencer 1993, p.13). They concluded that competencies can be taught and that many studies show that 'even core motive competencies' and attitudes or values, such as self-confidence, can be modified (p.286). However, competency-based selection methods are based on the hypothesis that higher job performance and job satisfaction will occur with the better the fit between the competencies required for a job and the competencies of the jobholder.

The research identified 20 generic behavioural competencies which can be applied across all industries (Spencer & Spencer 1993) and for which a behavioural rating scale has been produced. These 20 generic behavioural competencies are shown in table 6. These competencies have been used for the Behavioural Event Interview, which many enterprises use in their recruitment process. This style of interview is based on the theory that past performance is the best indicator of future behaviour, and uses questions which probe specific past behaviours. For example, typical questions include 'tell me about a time when you confronted an unexpected problem: tell me about an experience when you worked in a team'.

Previously this type of interview may have been associated with high-performance companies that found it was more cost-effective to select staff on the basis of desired attitudes and values (motives, traits and self-

concept of the individual). These companies had found that it was easier to train staff in additional technical skills and knowledge, whereas it was more difficult to develop in staff the appropriate values and attitudes. This view is more prevalent now in industry, for example, in the information technology industry.

Table 6: Generic behavioural competencies

Cluster	Generic competency
Achievement and action	1 Achievement orientation
	2 Concern for order, quality and accuracy
	3 Initiative
	4 Information seeking (including curiosity)
Helping and human service	5 Interpersonal understanding (including cross-cultural sensitivity)
	6 Customer service orientation
Impact and influence	7 Impact and influence
	8 Organisation awareness
	9 Relationship building
Managerial	10 Developing others
	11 Directiveness: assertiveness and use of positional power
	12 Teamwork and co-operation (including motivating others, conflict resolution, group management or group facilitation)
	13 Team leadership
Cognitive	14 Analytical thinking
	15 Conceptual thinking
	16 Expertise—technical/professional/managerial
Personal effectiveness	17 Self-control
	18 Self-confidence
	19 Flexibility
	20 Organisational commitment

The increased interest in generic skills reflects the change of focus on the workplace competencies as defined by Mayer (1992) to include the behavioural competencies which McClelland found were required for high performance in the workplace. This is reflected in the recent research report on the training needs of industry, *Training to compete*, by the Allen Consulting Group–Australian Industry Group (2000). The recent report, titled *Employer satisfaction with graduate skills*, by AC Nielsen Research Services (2000), which reports on university and TAFE graduates also highlights the importance of the behavioural competencies. The generic skills required are listed in table 7.

The AC Nielsen (2000) report on *Employer satisfaction with graduate skills* has described the skills that were deficient in graduates interviewed by employers. These include a lack of:

- communication skills
- interpersonal skills
- understanding of business practice

However, the most important deficiencies among new graduates were perceived to be in the areas of:

- creativity and flair
- oral business communications
- problem-solving

The deficiencies in generic skills of some university graduates has prompted the Department of Education, Training and Youth Affairs (DETYA) to commission the Australian Council for Educational Research (ACER) to create the Graduate Skills Assessment Test (ACER 2000). This test measures a set of generic or

transferable skills which have been identified as predictive of effective workplace performance. Four areas are included in the tests. These are:

- critical thinking
- problem-solving
- interpersonal understanding
- written communication

Additional components relating to information literacy, IT familiarity or personal management skills may be added also at a later date. The Graduate Skills Assessment Test will become a routine assessment for Australian university students in 2001. Once employers are familiar with this test, they may request the results from job applicants. This may lead in future to a need for a similar test for vocational education and training graduates.

Table 7: Generic skills required

Generic skills required by competitive companies—Allen Consulting Group 2000	Skills sought in new graduates from university and TAFE—AC Nielsen 2000
Generic 'core' or basic skills:	Academic achievement in a suitable discipline:
Literacy	Literacy – *developed in school*
Numeracy	Numeracy – *developed in school*
Information technology capability	Basic computer skills – *developed in school*
Understanding of systems relationships	Time management skills
	Written business communication skills
Inter-personal or 'relationship' skills:	Oral communication skills
Communication	Interpersonal skills
Teamworking	Teamworking skills
Customer focus	Problem-solving skills
Project and personal management	Comprehension of business processes
	Sometimes also:
	Research and analysis skills
	Leadership skills
Personal attributes:	Personal attributes:
Capacity to learn	Enthusiasm
Willingness to embrace change	Motivation
Independent problem-solving and reasoning capability	Ambition
Practicality and a business-orientation	Maturity
	Personal presentation, including grooming and dress, and evidence of interest in the actual position
	Skills for the future:
	Graduates need to demonstrate adaptability and flexibility, and
	Be aware of the need for continuous learning and re-training throughout their careers

Generic skills for the knowledge worker

The workplace is a dynamic system that now, and in the future, will rely less on technical skills of production and more on the generation, management and application of knowledge. Thus, most workers will become knowledge workers.

Harman and Brelade (2001) define the knowledge worker as:

> *... someone whose basic 'tools of the trade' are the knowledge, skills and abilities they possess. Traditionally associated with highly paid individuals, be they employees, contractors or consultants. In the knowledge economy most employees are becoming knowledge workers.* (p.10)

They identify five important characteristics of knowledge workers. Individuals who are able to manage their own learning and development are described as having the:

- confidence to take on new tasks and projects
- curiosity to understand and find things out
- co-operativeness to share information and ideas with others
- commitment to learning new skills and new information
- creativity to connect different ideas and experiences

That successful companies promote a culture of learning is illustrated by Vines (2000) in her interview with managing director of the Apple computer company in Australia, Diana Ryall. Ms Ryall is quoted as saying:

> *We interview for culture. I can cope with people who may not have all the skills I need, but I want people who want to learn and work in cross-functional teams. I want a very high level of integrity and I want a passion for the job. ... I want people who collaborate, communicate and are team players.* (Vines 2000, pp.12–13)

Information literacy competencies

Information literacy is an essential competency for the knowledge worker. In their 1994 publication Candy et al. state their belief that to be educated a person must be 'information literate' and 'to an extent, computer literate as well' (Candy et al. 1995, p.xii). A submission from the Council of Australian University Librarians (CAUL) to the study conducted by Candy et al. listed the information literacy (and computer) competencies CAUL members believed it is essential for students to develop during their undergraduate education. These competencies include:

- understanding the nature of information society
- understanding, and being able to implement the process of identifying an information need, locating, retrieving, evaluation and synthesising the information required
- developing a high level of communication skills, including the ability to communicate with colleagues and information professionals
- developing a sound knowledge of information sources, including network sources, and strategies for using them
- developing the ability to manage the information retrieved through appropriate use of, for example, word processors, spreadsheets, bibliographic management software
- developing a familiarity with the hardware of information technology, books, newspapers, videos, compact disks, computers and all their accompanying apparatus. (S30:2 cited in Candy et al. 1994, p.172)

To these competencies others can now be added, for example:

- good searching skills for interrogating online information sources
- knowledge of search engines and particular search strategies for the Internet
- an understanding of how to evaluate Internet sources and assess their usefulness, validity and relevant for their intended purpose
- how to acknowledge information sources through the Internet
- knowledge of electronic publication issues associated with web sites and copyright issues

Comparison of identified generic skills

The generic skills as described in the recent reviews and research studies are expressed in many ways, using a variety of terms. Although the generic competencies are interrelated and overlap (Hager et al. 1997) it seems helpful to review the findings of recent studies in line with easily understood categories. The categories chosen by this researcher are basic skills, interpersonal skills and personal attributes. The comparison of the generic skills by this researcher of the five recent research studies and the Mayer key competencies is shown in table 8.

Table 8: Summary of generic skills

Reference	Core or basic skills	Interpersonal skills	Personal attributes
Mayer 1992	Collecting, analysing and organising information	Working with others and in teams	
	Communication ideas and information	Communication ideas and information	
	Planning and organising activities	(Cultural understanding)	
	Working with others and in teams		
	Solving problems		
	Using mathematical ideas		
	Using technology		
Field and Mawer (1996)	Mayer key competencies	Mayer key competencies	Intellectual and attitudinal core
	Routine technical skills	Empowerment	Empowerment
Jasinksi 1996	Mayer key competencies	Cultural understanding	Entrepreneunal
	Learning skills		Intrapersonal and self-awareness
			Learning capacity
Allen Consulting Group 2000	Literacy	Communication	Capacity to learn
	Numeracy	Teamworking	Willingness to embrace change
	Information technology capability	Customer focus	Independent problem-solving and reasoning capability
	Understanding of systems relationships	Project and personal management	Practicality and a business-orientation
AC Nielsen 2000	Literacy	Interpersonal skills	Enthusiasm
	Numeracy	Teamworking skills	Motivation
	Basic computer skills		Ambition
	Time-management skills	*Sometimes also:*	Maturity
	Oral communication skills	Leadership skills	Personal presentation
	Written business communication skills		Interest in the position
			Skills for the future:
	Problem-solving skills		Adaptability and flexibility
	Comprehension of business processes		Be aware of the need for continuous learning and re-training throughout their careers
	Research and analysis skills (*sometimes*)		
University graduate capabilities (Bowden et al.)	Knowledge	Teamwork	Responsibility—for own learning and behaviour and makes informed decisions
	Critical analysis	Leadership	
	Creativity		Environmental awareness
	Communication		International orientation

In addition, 'understanding of systems', has been mentioned as essential for effective workplace performance by some employers (Allen Consulting Group 2000). This is reflected in the WorkSmart Profile under the organisational processes generic abilities (WA STB 2001). In table 9 these abilities are compared to the competencies identified by Candy et al. (1994) for lifelong learning and Kearns (2000) for employability.

Table 9: Summary of generic abilities

Reference	Core or basic skills	Interpersonal skills	Personal attributes
WorksSmart Profi --generic ability statement (at AQF III): (WA STB 2001)		Interpersonal processes:	Personal processes:
		Teamwork	Personal responsibility
		Networking	Positive attitude
		Building relationships	Flexibility
		Meeting expectations	Environmental responsibility
		Customer focus	Prioritising multiple tasks and responsibilities
			Resource use
			Change agency
			Organisational processes:
			Initiative
			Adaptability
			Problem-solving
			Forward planning
			Systems thinking to contribute to quality systems and continuous improvement
			Commitment to sustainable practices and waste reduction
			Efficiency to minimise costs and increase productivity
			Creativity
Lifelong learning (Candy et al. 1994; adapted by Kearns 1999)	A repertoire of learning skills	Interpersonal effectiveness	An inquiring mind and curiosity
	Information literacy		A commitment to personal mastery and ongoing development
			Helicopter vision
Employability (Kearns 2000)	Literacy	Working with others	Desire to learn and to apply learning
	Numeracy	Customer service skills	
	Communication	Modern language	Adaptable and able to take advantage of change
	Application of number		Improving one's own learning and performance
	Information technology		
	Problem-solving		The ability to management one's own career
	Up-to-date and relevant knowledge and understanding		
	Up-to-date job-specific skills		

Integrating generic skills into training packages

The Australian National Training Authority provides guidance for those developing training packages for particular industries or enterprises. The *Updated guidelines for training packages developers* manual specified that competency standards must incorporate or identify the key competencies and their related performance levels. Furthermore the guidelines provide two approaches by which this may be achieved. These are:

> *There are two approaches to the incorporation of key competencies, namely, at the individual until level or the packaged group of units level … In certain circumstances it may be determined that identification of what key competencies are underpinning or enabling the industry competencies is best exampled through considering meaningful groups of units.* (ANTA 1998, p.11)

In the revised version (ANTA 1999) the information has been abbreviated to:

> *When developing competency standards:*
>
> *identify key competencies at their related performance level, in the evidence guide at the individual unit level, or by considering meaningful groups of units.* (p.10)

Down (2000) has noted that the key competency performance levels as described by Mayer (1992) may mean that the key competencies are seen as one-off skills to be checked off to progress to the next level. She explains that:

> *The key competencies are recognised by enterprise personnel as desirable or essential attributes of their workforce … They support the notion that key competencies provide the tools learners need to transfer, adapt, transform and apply their learning across workplace contexts. They want to be confident that the key competencies are part of the learning and assessment provided by training packages.* (Down 2000, p.23)

Down (2000) identifies 13 strategies derived from recent VET research, to ensure consistency in linking the generic competencies to specific units of competency. She also notes that applications using key competencies or generic skills need to be more explicit in the performance criteria and hence the assessment.

The National Communication Educators Incorporated (NEC 2000) highlights the skills deficiencies most commonly cited by employers in recent surveys. NEC raises concerns that the communication and self-management skills can often be obscured in the sections dealing with underpinning skills and knowledge of the training packages. NEC advocates that these skills should be clearly identified and assessed as key competencies with clearly defined elements of competency and related performance criteria. NEC believes that there is a need to include specialist communication professionals, and other specialists, in the development of training packages, assessment guidelines, support materials and learning strategies.

Cornford and Beven (1999) also advocate a more systematic training for generic skills like problem-solving and decision-making in workplace learning. They also highlight that transfer is important for effective problem-solving and so the learning should be formalised as informal learning may be context-specific only.

Teaching generic skills

That key competencies should be integrated explicitly and systematically with technical competencies is one of the principles highlighted by Hager et al. (1997). There are two possible approaches to integrating key competencies, language, literacy and numeracy into units of competency and training programs: built in or integrated approach and bolted on or separate approach (ANTA 1998; 1999; 2000). The integrated approach interwines the key competencies explicitly with vocational competencies in all aspects of training (Moy 1999). This holistic approach to the development of technical and generic skills has been supported because it is thought closer to the real experience in the workplace. Teaching generic skills integrated with technical skills is the more complex approach but is perceived as making them more relevant and so increasing motivation to learn. However, separate generic skills units, such as communication and teamwork, may be used as foundation units. For the existing adult workers, who have specific learning needs, teaching these generic skills, including learning skills, separately to the technical skills may also be needed.

For some adults, especially those who are unemployed, a prevocational or foundation course may be essential or desirable before entering the workforce. Each industry has different requirements around core or foundation units, such as 'communication in the workplace' or 'occupational heath and safety' and so have developed their own unit of competency under their own training package.

Carnevale and Rose (1998) suggest a general approach to categorising occupations. They split the occupations into six categories according to the environment in which people worked; that is, administration and co-ordination, goods-producing in industrial production, goods-producing extractive industries, low-skilled services and high-skilled services. Rather than a separate pre-vocational or Certificate I for each training package, it may be desirable to create pathways into the workforce and training packages via a more general foundation course with basic employment skills, learning skills and elective subjects for particular industries.

Down (2000) suggests that learning strategies, which support key competency development, should be used at all stages of training from entry-level to management; in certificate courses and diploma courses, as part of the units of competency. Down's learning strategies include:

- workplace projects
- use of critical incidents to focus discussion and problem-solving
- investigation or enquiry-based learning

- problem-solving learning
- project learning
- reflection on learning and workplace practice

Down believes that there is a magnitude of difference in the application of the key competencies across different vocational contexts. The role of the industry or workplace context is central in delivering key competencies.

Summary

The implementation of training packages has seen a move away from standard national curriculum to a focus on competency standards and assessment guidelines as a way of achieving workplace competence and national consistency. Training packages also enable more flexibility in the delivery of training. This means that delivery can be anywhere, such as in VET institutions, schools, workplaces or, via distance education or online delivery, at home. Training packages permit a combination of on-the-job and off-the-job training through new apprenticeships, as well as assessment-only pathways that take into account current competencies. The 'user choice' government policy enables employers with apprentices or trainees to choose a training provider to accommodate their needs. Some employers may choose to have their own staff qualified in Certificate IV in Workplace Assessment and Training, and apply for status as a registered training organisation.

In 1992, the focus of the Mayer key competencies was on workplace competencies for those entering the workplace for the first time. The focus in 2001 is on generic skills required for lifelong learning and employability of the whole workforce from entry-level workers to senior managers. At entry-level more emphasis is being placed on the personal attributes or behavioural skills, especially those required for sharing information, working in teams, personal responsibility and creativity. Understanding systems and business orientation or customer orientation are also important. Empowering learners to be self-directed will enhance the development of their lifelong learning skills.

Successful institutional and workplace learning requires a variety of experiences and learning strategies to ensure that conceptual, technical and generic skills of learners continue to develop and that transferability of skills to new contexts is enhanced. Skill development for existing workers takes into account the requirements for greater depth and breadth of the skills within the broad headings of the Mayer key competencies. This includes self-management, personal development, problem identifying, problem-solving, reasoning, strategic thinking, exercising judgment, teaching others, influencing others, risk-taking, innovation and leadership. Generic skills should appear in all job descriptions as they supplement the technical skills. There is a need for a training culture within the workplace.

Generic competencies are over-lapping and inter-related, should be viewed as both outcomes and processes, which enable more complex learning, and must be contextualised in authentic and simulated environments (Hager, et al. 1997). The six core principles identified by Hager et al. (1997) for integrating generic competencies should be kept in mind when developing training packages, learning support materials and assessment tools and when delivering training. The integration of the technical and generic skills is a most important element for effective workplace performance and a broader, more integrated approach to workplace performance should be researched and promoted (Moy 1999). The review of the literature has revealed a debate that has been conducted for at least 30 years on the use of competencies and what constitutes generic competencies. There are few studies on how to enhance the training delivery of the generic competencies.

Effective workplace performance involves the application of appropriate skills, knowledge, values and attitudes. However, most of the research literature focusses only on skills and knowledge training. The trend by some employers to select new employees on the basis of generic behavioural competencies highlights the importance of values and attitudes essential for effective work performance. These include appropriate work ethics, a willingness to embrace change and a commitment to lifelong learning. These companies have concluded that it is more difficult and costly to try to change values and attitudes, than it is to train employees in technical skills and knowledge. The challenge for schools, training providers and workplace trainers is to integrate the training in technical and generic competencies and also in the essential values and attitudes required for the particular industries or workplaces. Social research shows a marked change in values, attitudes, motivation and communication in the new generation and this must be taken into consideration in training. There is a need for research into learning strategies and management styles required to adapt training to the needs of the younger generation.

The literature on the knowledge economy and the changing nature of work emphasises the need for a number of changes in careers for this generation of workers. Very little research has been conducted on the transfer of generic skills from one context to another in the same workplace, from classroom to the workplace or from one industry to another. The training package developers have been encouraged to promote career pathways, common foundation or core units and to use units of competency already developed for other training packages, where possible. Recognition of VET qualifications and credit transfer arrangements with higher education institution are already available in a number of areas, for example, in Engineering trades and Community Service (Aged Care). Although these measures should assist workers or students to more easily move within an industry or between industries, further research is required on the use of the career pathways and linkages from VET-in-Schools and to higher education.

Findings from the training packages

This section examines the incorporation of the Mayer key competencies into the training packages. It also examines the core or compulsory competencies, which are required to obtain the Australian Qualifications Framework (AQF) qualifications. The aim was to probe the ways that generic skills are included in training packages in order to assess if they give sufficient focus to the attainment of generic skills.

The training packages

Nine different industry sector training packages and one enterprise-specific training package were selected for this study. The ten training packages were:

- Administration
- Agriculture
- Australian Red Cross Blood Service
- Civil Construction
- Community Services
- Entertainment
- Hospitality
- Information Technology
- Metal and Engineering
- Retail

Training packages were developed by the relevant national industry training advisory board, recognised body or enterprise, and presented to ANTA. After completing a quality assurance process, they were endorsed for the next three years by the National Training Framework Committee (now the National Training Quality Council). Training packages must undergo a review about 18 months after endorsement, so that implementation issues are addressed and they continue to reflect current industry practice. Following industry consultation, the national ITAB, recognised body or enterprise responsible for the review of the training package must submit a Stage 1 Review report to ANTA. The updated and enhanced training package is then submitted for re-endorsement for another three years.

Some of the selected training packages have already undergone the review process and enhanced training packages have been endorsed (for example, the new business services training package now replaces the original administration training package). Stage 1 Review reports already completed are listed in table 10.

Some industries or industry sectors selected for this study were using competency standards before the development of the training package in 1997. However, the process of developing a training package was far more difficult for those industries, which had to write down their workplace competencies for the first time (for example, the entertainment industry).

Hospitality, administration, and retail training packages were endorsed in 1997 and implemented in all States by 1999. The community services training package was endorsed and implemented in 1999. The civil construction and metal and engineering training packages were endorsed in 1998 and cover traditionally male-dominated trade areas. The rural skills training packages in agriculture and horticulture were endorsed in 1998. The entertainment industry training package was endorsed in 1998, in an industry sector which previously had few qualifications and where there were few registered training organisations.

Information technology was an emerging industry and so needed a training package which could be readily updated to keep pace with new developments. The information technology training package was first developed in 1998 and a new version endorsed in 1999. The tenth training package selected was an enterprise-specific training package developed by the Australian Red Cross Blood Service (ARCBS) and endorsed in 2000.

To assist in the implementation process for the training packages, the ITABs have produced case studies to illustrate specific examples and benefits to employers and employees. Where previous case studies have been published these are shown in table 10.

Table 10: Training package implementation and review reports

Training package	Code	Implementation or review report or case study
Administration	BSA97	BSA97 incorporated into business services training package (BSA00) and endorsed on 17 August 2001
Agriculture	RUA98	Stage 1 Review report submitted to ANTA
		Case studies: Implementing the agriculture and horticulture training packages, Rural Training Council of Australia 1999
Australian Red Cross Blood Service (ARCBS)	ZBS00	No data in national VET collection on employer-sponsored training
		ARCBS supplied copy of training package for NCVER research
Civil Construction	BCC98	Stage 1 Review reports for civil and general construction submitted
		Construction Training Australia 1995—case studies in *Communicating—part of work, part of training*
		Construction Training Australia 1999, *Training when, where and how we want it—case studies from civil construction and general construction training packages in action*
		Case study for *Literacy and numeracy on the motorway* (Adult Literacy and Numeracy Research Consortium 1999b)
Community Services	CHC99	Stage 1 Review report submitted to ANTA
		Case studies in aged care and hospitality (Adult Literacy and Numeracy Research Consortium 2000)
Entertainment	CUE98	Review delayed until later in 2001 (implementation has been slow due to few existing registered training organisations)
Hospitality	THH97	*Improving profit through training and training packages*, a glossy brochure featuring five case studies (Tourism Training Australia 2000)
		Case study for *Communication and catering competencies* (Adult Literacy and Numeracy Research Consortium 2000)
		Draft document on mapping generic skills at different AQF levels
Information Technology	ICA99 & ICA98	No review report of ICA99 (updated from ICA98)
		Information technology case studies report
		Telecommunications training package stage 1 review report submitted to ANTA
Metal and Engineering	MEM98	*Training to compete*, the Australian industry group report
Retail	WRR97	National Wholesale Retail and Personal Services (WRAPS) Industry Training Council Ltd published *Enterprise case studies* in 1999
		Stage 1 Review report for retail training package submitted to ANTA

Incorporation of Mayer key competencies

ITAB personnel and those who were responsible for the development of the training packages were interviewed to determine how the Mayer key competencies had been applied in the development of the training package.

The ANTA guidelines for developers indicate that the industry competency standards must incorporate or identify the key competencies and their related performance levels, and incorporate language, literacy and numeracy competencies (ANTA 1999). The seven key competencies as defined by the Mayer committee relate to generic abilities that people need for effective participation in work and life. They were assumed to be transferable skills that were relevant to all industries and occupations. As already noted in prior chapters these key competencies are:

- collecting, analysing and organising information

- communicating ideas and information
- planning and organising activities
- working with others and in teams
- using mathematical ideas and techniques
- solving problems
- using technology

An examination of the training packages found that a checklist or table for the seven Mayer key competencies, and the required performance level, had been provided in each unit of competency. Interviews with developers indicated that in most cases the identification of the key competencies, and the performance level required, was done through stakeholder consultation. However, the developers of the entertainment industry training package had determined the key competencies and their levels.

Several ITAB and industry interviewees, such as those in the construction industry, believed that the key competencies had little relevance to their industry. One workplace trainer in the hospitality industry wanted more practical examples than were provided by the list of key competencies.

'Key competencies' and 'generic skills' are part of education terminology. However, it was found that respondents described those same skills as 'essential skills'. In fact, the term 'generic skills' had a different meaning to each person interviewed. Hence, industry respondents were encouraged to firstly indicate which skills were considered to be essential for their industry. It was found that the 'generic skills', as identified, were most often integrated with technical skills and progressively developed at increasing AQF levels.

Similarly the Adult Literacy and Numeracy Australian Research Consortium (ALNARC) found that one of the most important factors in meeting the literacy, numeracy and English language needs of students in vocational courses was to ensure that literacy support was wholly relevant to the actual industry and study needs of the students (ALNARC 1999b). That is, literacy and numeracy support needed to be contextualised. In addition, team teaching, with the language expert working alongside the industry expert, was a successful model used in Western Australia, especially in the metals and construction areas.

Only the workplace English Language and Literacy (WELL) program provided explicit, structured instruction in the language and literacy components of industry standards (ALNARC 1999c).

Focus on generic skills

The first research question focussed on whether the training packages concentrated sufficiently on generic skills. In addition to examining whether the Mayer key competencies underpinned every unit of competency, this study looked at the focus on specific units of competency related to important generic skills, such as communication and safety in the workplace. All training packages examined listed either core, essential, mandatory or compulsory units for the AQF levels and additional elective units. The Australian Red Cross Blood Service training package identified seven generic competency areas, or seven sets of generic competency standards, which apply across all specialist areas.

Administration training package

Background

The Admin Training Company first developed competency standards for the administration workforce in 1993 following an extensive consultation process with industry. The national clerical–administration competency standards (private sector) were subsequently updated and the second edition endorsed in 1996. Further enhancements were made to the standards in 1997 prior to their incorporation as a fundamental component of the administration training package. The National Training Framework Committee endorsed this training package in October 1997. It was one of the first training packages to be endorsed.

The standards were called the 'administration competency standards' and provided the benchmark for nationally recognised qualifications in business administration. They described the administration skills required across many industries. These included seven skill areas:

- information handling
- communication

- enterprise/customer service
- technology
- organisational
- team
- business financial

The administration competency standards described the skills used by administrative workers. Administrative workers are found in almost every industry: the local car repair shop employs an administrative assistant; the local retail chain employs hundreds of administrative workers; the local doctor, dentist and solicitor all employ administrative staff. The legal services competency standards described the skills used by legal services workers and comprised a separate stream of the administration training package. In addition, specific medical office units of competency were developed for the update to the administration training package in 2000.

The administration competency standards were packaged or grouped into eight qualifications at AQF levels 1 to 5. The eight qualifications were:

- Certificate I in Business (Office Skills)
- Certificate II in Business (Office Administration)
- Certificate III in Business (Office Administration)
- Certificate III in Business (Legal Administration)
- Certificate IV in Business (Administration)
- Certificate IV in Business (Legal Services)
- Diploma of Business (Administration)
- Diploma of Business (Legal Services)

The units of competency in Certificate I in Business (Office Skills) were incorporated into the Certificate II in Business (Office Administration). The purpose of Certificate I was to meet the needs of remote communities, school-based training and part-time or distance education. Advice from industry indicated that AQF Level 1 employment outcomes were minimal and recommended that individuals wanting to work in administration should seek a Level 2 qualification.

The packaging of units of competency within the administration training package BSA97 followed a core and elective model. Electives were chosen from the administration competency standards, the legal services competency standards, or any other endorsed competency standards, from any training package. In the administration training package there were a range of electives from other training packages, for example, frontline management, workplace trainer and assessor, and community services and health. There were also additional competency standards from other industries. These included hospitality, tourism, retail, agriculture, horticulture, veterinary nursing and frontline management.

The administrative competency standards were also used by other industries in the development of their training packages.

Review process

Business Services Training Australia Ltd (BST) is the national industry training advisory body for all levels of the business services sector. In 1999, BST was contracted to update aspects of the Administration training package for the Australian National Training Authority (ANTA). BST sub-contracted the Admin Training Company to undertake the project. The update to the administration training package was a direct response to a variety of implementation issues that had arisen. These included issues such as flexibility and customisation for industry-specific training outcomes.

The administration training package (enhanced version) was endorsed until 20 June 2001. Following the review of the administration training package, it was integrated into the larger business services training package. Business Services Training Australia Ltd (BST) developed the business services training package, which was endorsed on 17 August 2001 for three years.

As part of the update to the administration training package, the Admin Training Company undertook a language, literacy and numeracy (LLN) review of the standards. The review was carried out under the guidance of the LLN expert engaged by ANTA to review the incorporation of LLN in training packages. LLN skills were identified in the evidence guide as the underpinning skills that supported larger tasks. ANTA's

intention was to incorporate the Mayer key competencies, in a similar way to LLN skills, by identifying the specific skills in the evidence guide as the underpinning skills that support larger tasks.

Focus on generic skills

The core units of competency at each level defined a set of essential units, which must be attained by any person to achieve the related AQF qualifications. In the Business Services training package changes were made to the packaging of the qualifications from AQF Level 2 to AQF Level 5. This resulted in new qualifications for these levels. No changes were made to the packaging of AQF Level 1, and that qualification remained the same as it was in 1997. Certificate I in Business (Office Skills) had nine core units. These included:

- Handle mail to facilitate communication
- Handle information to maintain access to and security of records
- Receive and pass on messages to facilitate communication flow
- Apply knowledge of enterprise to complete routine task
- Operate a range of office equipment to complete routine task
- Access and retrieve computer data
- Follow established work schedules to achieve designated team or section goals
- Participate in a team to achieve designated tasks
- Prepare routine financial documents

There were no prerequisites for Certificate II in Business (Office Administration) and the 14 compulsory core units incorporate the units in Certificate I. These include:

- Handle mail to facilitate communication flow
- Process and analyse information to provide access to and security of records
- Receive and pass on oral messages to facilitate effective routine communication
- Receive and pass on written information to facilitate communication
- Apply knowledge of enterprise to promote its products and services
- Follow OHS&W polices and procedures in the workplace in order to ensure own safety and that of others in the workplace
- Apply knowledge of employee's and employer's rights and responsibilities to workplace environment
- Select, operate and maintain a range of office equipment to complete a range of tasks
- Operate a computer to gain access to and retrieve data
- Operate a computer to produce simple documents
- Organise the copying and collating of documents
- Organise own work schedule to achieve designated team to section goals
- Participate in allocation and completion of team teaks
- Prepare and process financial documentation for cash flow and accounting records

Five of the seven Mayer key competencies were covered in each core unit at performance level 1 or 2. All key competencies were covered by completing all the core units. There were several units referring to the ability to use technology. 'Using mathematical ideas or techniques' was part of the financial unit.

At AQF Level 3, three of the core and two of the elective units had prerequisites from core units in AQF Level 2 of the Administration Competency Standards. The 11 core units were compulsory and the three electives were chosen from any endorsed units of competency. The core units included:

- Maintain information records system to ensure integrity
- Collect and provide information and advice regarding products or services of the enterprise to meet client needs
- Process client complaints to ensure the goals of the enterprise are met
- Apply knowledge of employee's and employer's rights and responsibilities to workplace environment
- Use the advanced functions of a range of office equipment to complete daily tasks
- Design and develop documents, reports and worksheets

- Maintain computer files
- Operate and maintain computer printer
- Co-ordinate own work schedule with that of others to achieve agreed team or section goals
- Negotiate with team members to allocate and complete tasks to achieve team goals

Similarly at AQF Level 4, two of the core units had prerequisites from core units in AQF Level 3 of administration competency standards. Six core units were compulsory and four elective units were chosen from any endorsed units of competency at the same AQF level. In addition, one elective unit may be chosen from AQF Level 3 or Level 5.The core units included:

- Supervise an established record system to ensure integrity
- Organise and provide information in response to requests
- Provide advice in order to meet current and anticipated client requirements
- Apply knowledge of employee's and employer's rights and responsibility to workplace environment
- Produce complex documents
- Plan meetings to enable the stated objectives of the meetings to be met.

The Mayer key competencies at AQF Level 4 were required at a higher performance level.

Agriculture training package

Background

The rural skills training packages in agriculture and horticulture were endorsed in 1998. Endorsed components contain industry competency standards, assessment guidelines and qualification details related to the six levels of the Australian Qualifications Framework (that is, Certificate I, II, III, IV, Diploma and Advanced Diploma of Agriculture). The agriculture training package covers 15 industry sectors. These include:

- Beef cattle production
- Dairy production
- Dairy milk harvesting
- Grain production
- Horse breeding
- Poultry production
- Rural merchandising
- Sheep and wool production
- Wool harvesting
- Cotton production
- Goat production
- Pig production
- Sugar cane production
- Rural business management

Each sector's standards were published under separate cover, with the exception of 'Farm chemical', which was incorporated into all sector standards. Non-endorsed components, which include learning guides, trainer's guides, career guides and competency record books, have also been developed for the sectors. The competency record book was designed to record underpinning knowledge and skills.

Review process

Stage 1 of the agriculture training package review has been completed. Stage 2 of the review has begun and will instigate the refinements and improvements to the training package identified in Stage 1. The scheduled re-endorsement process takes place in 2002.

An extension to Stage 1 of the review was undertaken to develop a draft qualification framework, competency unit template and draft chemical units in preparation for Stage 2. A new AQF Level 1 core unit, called 'Follow workplace requirements', is currently under development to address all the revised core areas in a more rudimentary way. The proposed core units 1, 2, 4 and 6 apply at AQF Level 2, while unit 5 is included in AQF Level 3. Units 5 and 6 apply at AQF Level 4 and unit 6 at AQF Level 5. The proposed core units are:

- Work effectively in the industry
- Follow OHS&W procedures
- Provide basic first aid
- Communicate in the workplace
- Respond to emergencies
- Observe environmental practices

The proposed packaging rules for qualifications thus have one core unit for Certificate I, four core standards for Certificate II and III in Agriculture and two core standards for Certificate IV.

Focus on generic skills

There were six mandatory units of competency for agriculture qualifications. These include:

- Meet industry requirements
- Follow enterprise occupational health and safety (OHS&W) procedures
- Use hazardous substances safely
- Communicate in the workplace
- Act to minimise emergencies and respond to a variety of situations
- Plan daily work routine

These were expected to cover five of the seven Mayer key competencies at performance level 1 (that is, competently following instructions). In general, these units did not include using technology or mathematical ideas and techniques.

Australian Red Cross Blood Services training package

Background

The Australian Red Cross Blood Services (ARCBS) workplace learning system national enterprise training package was endorsed by the National Training Framework Committee in the year 2000 (code ZBS00). The copyright is owned by ARCBS and allows ARCBS to market it overseas in order to recover some of the costs of development.

In October 1996 the eight semi-autonomous services in Australia united to form the national ARCBS. The former Victorian ARC was given the responsibility for managing the project for developing the competency standards for the national ARCBS. The project management committee comprised the newly appointed national human resources co-ordinator, workplace learning project officer, personnel representing all ARCBS business units and States and Territories, nominated representatives from the Australian Nurses Federation (ANF), Health Services Union of Australia (HSUA), Community and Public Sector Union (CPSU) and the National Association of Testing Authorities (NATA).

From March 1997, the ARCBS used action learning processes focussed on occupational health and safety (OHS&W) to implement the competency-based training project. It took three years to develop the competency standards and training package and, through negotiation, staff became aware that competency standards referred to the standards of work.

The initial focus of the competency-based training project was on identifying work standards and applying recognition of current competencies (RCC) processes for the staff. The national workplace learning manager noted that the challenge for the ARCBS was to recognise the existing skills of staff and then to add the specific skills that are required in the workplace environment. In particular, it was much more challenging to train staff and volunteers to adopt the appropriate attitudes and values than to get them to acquire technical skills. Because training encompasses knowledge, skills, attitudes and values, it was decided that all these should be included in the assessment of competence.

Various methods were used to develop the competency standards. These included initial drafting at workshops by State/Territory representative clinical specialists and on-the-job observation of actual work roles and practices. Information on the processes used by all States and Territories including job descriptions, standard operating procedures (SOPs), work instructions, operating instructions and training documentation were collected. Informal discussions, critical incident technique interviews and a staff survey were also conducted. Workshops were conducted to identify the competency standards for specific jobs and align these to AQF levels. The Mayer key competencies were also described. Existing nationally endorsed standards from Worksafe–OHS&W National Competency Standards were then customised to meet the needs of ARCBS. Finally, each draft set of standards was sent out four times to the ARCBS States/Territories, professional associations and the unions for consultation and validation.

The ARCBS competency standards consisted of seven generic (or core) areas and five specialist areas. The generic competency standards were applicable across all the specialist areas and included:

- Occupational health and safety
- Customer service
- Quality assurance
- Individual and teamwork
- Facilities and equipment
- Record-keeping
- Professional development

The five specialist competency areas were:

- Donor selection for blood and blood component selection
- Collection of blood and blood components
- Donor screening and product testing of blood and blood components
- Processing of blood and blood components
- Inventory and distribution of blood and blood components

The introduction of the new computerised Blood Management Information System required rewriting of all the standard operating procedures (SOPs). In addition, all assessment tools were also required to be mapped against the competency standards. The OHS&W and the quality manuals have already been mapped against the competency standards. This exercise is progressing in the other core areas and documentation and assessment tools are being rewritten.

Review process

The ARCBS has a quality system in place for continuous improvement. However, the formal review process for the national ARCBS training package will commence at a later stage.

Focus on generic skills

The ARCBS generic competency areas included:

- Occupational health and safety
- Customer service
- Quality assurance
- Individual and teamwork
- Facilities and equipment
- Record-keeping
- Professional development

The seven key competencies were built into all the competency standards. Because of the introduction of a new Blood Management System, all staff were required to be able to use computers. Therefore, the ARCBS business units were progressively implementing computer training using the *Toolkit for basic computing*.

For each of these core areas there were identified a number of generic competency standards (ranging from two generic competencies in the professional development area to ten in the individual and teamwork and

facilities and equipment areas). For example, in the occupational health and safety area there were five generic competency standards. These included:

- Manage waste to ensure appropriate disposal
- Maintain security to ensure a safe environment
- Follow occupational health and safety policies and procedures in the workplace to ensure own safety and that of others in the workplace
- Apply safe and hygienic personal work practices to ensure quality of outcomes
- Implement and monitor OHS&W policies, procedures and programs to ensure that all members of the work group are fully informed.

The performance levels for key competencies were indicated for each generic competency. These units generally covered all seven Mayer key competencies at performance level 2 or 3. However, some units only covered 'Using technology' or 'Using mathematical ideas and techniques' to performance level 1.

For the customer service area, there were four generic competency standards. These were:

- Provide information and advice to customers regarding the products/services of the organisation
- Resolve customer complaints to ensure organisational goals are met
- Provide customer service
- Practise and promote customer service

The individual and teamwork area consisted of ten generic competency standards. These were:

- Organise own work schedule and co-ordinate with schedules of others to achieve group/department goals
- Monitor completion of tasks
- Participate in the allocation and completion of team tasks
- Liaise with team members to allocate and complete tasks to achieve team and group goals
- Manage the team to ensure team achievements reflect identified organisation goals
- Resolve conflict
- Manage conflict
- Roster staff to ensure appropriate levels of staffing are maintained
- Participate in staff selection to ensure appropriate levels of staffing are maintained
- Participate in identifying and establishing requirements for new team position

The performance levels for key competencies for these generic competency units covered all seven Mayer key competencies generally at performance level 3. However, in the majority of these units 'Using technology' or 'Using mathematical ideas and techniques' were covered at lower performance levels.

Community Services training package

Background

The Community Services training package was developed in consultation with the industry by Community Services and Health Training Australia Ltd, the national ITAB for the community services and health industries. The training package was endorsed in 1999. Endorsed components contain industry competency standards, assessment guidelines and qualification details related to the five levels of the Australian Qualifications Framework (that is, Certificate II, III, IV, Diploma and Advanced Diploma). The training package covered nine industry sectors. These included:

- Aged-care work
- Alcohol and other drugs work
- Child protection, juvenile justice, statutory supervision
- Children's services
- Community housing work
- Community work
- Disability work

- Mental health work (non-clinical)
- Youth work

The training package incorporated two groups of competency standards. These were:

- common units of competency, which enable transferability of training and qualifications
- specialisation units of competency, which ensure consistency in service delivery within particular functional areas

In the Certificate III in Community Services in Aged Care Work, the total number of units of competency required was 13. This included six compulsory, five elective and two optional competencies. The two optional competencies could be from the elective units for this or higher levels, from the compulsory units at higher levels, units from endorsed standards in any industry at this or higher levels, or enterprise-specific units.

Review process

In the stage 1 review report for the Community Services training package, it was noted that the community services workers were comparatively older than in other industry sectors. Apart from those in the children's services sector, employers seemed unable or unwilling to attract young workers. With 37% of the workforce estimated to retire in the next decade, it was felt important to make careers in this industry more enticing for young people. This age distribution of the workforce explained much of the industry's preoccupation with training the existing workforce.

Collaborative and partnership arrangements have become essential in service delivery and attempts have been made to focus joint action around local/regional areas or individual clients. However, economic concerns have resulted in performance-based funding and contracting out of services. These events have created difficulties for collaborative arrangements.

The review noted the industry had requested increased flexibility in the training package and suggestions for enhancing flexibility were provided. These included a reduction in the number of compulsory units (especially the common units), the disaggregation (or amalgamation) of key units of competency and the introduction of more optional elective choices (including units from other sectors and/or other training packages).

Focus on generic skills

The aged-care specialisation compulsory unit, 'Orientation to aged-care work', and five common competencies, were required. These included:

- Deliver services to clients
- Communicate appropriately with clients and colleagues
- Process and provide information
- Participate in the work environment
- Follow the organisation's occupational health and safety polices

In addition, five elective units, one of which must be an aged-care elective unit, were undertaken. The aged-care elective units included:

- Provide care support to aged people
- Assist with aged people's personal needs
- Assist in the provision of the appropriate environment
- Contribute to service delivery strategy
- Provide services to aged people
- Provide services to meet aged people's personal needs

A number of generic skills (*) also appear in the common elective units of competency, which included:

- *Undertake work in the community services industry
- *Advocate for clients
- *Provide administrative support
- *Support group activities

- *Participate in networks
- Assess and deliver services to clients with complex needs
- Support community resources
- Undertake case management
- Operate under a casework framework
- Participate in policy development

Other electives were from other community services sectors, such as disability, mental health, community housing and alcohol and other drugs sectors.

The performance levels for key competencies were indicated for each competency. These units generally covered five out of the seven Mayer key competencies at performance level 2 or 3. In general, these units did not include 'Using technology' or 'Using mathematical ideas and techniques'.

Civil Construction training packages

Background

Construction Training Australia, the national building and construction industry training council, in consultation with the industry sector developed the Civil and General Construction training packages, which were endorsed in October 1998. They decided to include core, elective and optional competency standards in packaging standards into qualifications aligned to AQF levels.

The Civil Construction training package covered the following areas:

- Plant construction
- Road construction and maintenance
- Tunnel construction
- Bridge/marine construction
- Foundation work—anchors/piling
- Railway construction and maintenance
- Pipelaying
- (also in future) Road marking

Some of the Certificate III qualifications had more than one pathway within the one qualification, such as Certificate III in Plant Construction, where apprentices chose from nine major plant construction items. Similarly apprentices following Certificate III (Foundation Work) selected the pathway (Piling or Anchors) that suited them.

It has been estimated that nationally up to 70% of the industry workforce may not possess sufficient communication skills to effectively develop further workplace skills. The majority of workers had not completed secondary school and had not participated in formal training since leaving school. In addition, Adult Literacy and Numeracy Australian Research Consortium (ALNARC) research revealed that approximately 40% of workers in the building and construction industry were of non-English-speaking background (NESB). Approximately 45% of workers gained their skills informally on the job and had no post-school qualifications. There existed a need to build on existing skills gained from experience on the job by enhancing communication skills in a structured manner. A number of best practice examples have been published for improving basic literacy and numeracy in the building and construction industry (CTA 1995; ALNARC 1999b).

Research by Hager et al. (2000) identified the generic competencies of communicating ideas and information, planning and organising, teamwork and collecting, analysing and organising information as being very significant to this industry.

Review process

In June 2000, the Australian National Training Authority (ANTA) contracted Construction Training Australia to review the Civil Construction training package. Following extensive consultation with

stakeholders through a national questionnaire, focus groups, workshops, seminars and interviews, the stage 1 review report was completed by December 2000.

In the construction industry, workers were employed on a project for a limited time and moved from site to site. Therefore, increased flexibility (less core, more electives) was required by employers and workers, especially in the areas of plant operations, road construction and local government.

The report also recommended that a Certificate I should be included within the training package as a pre-vocational program, and that small business skills should be incorporated into relevant qualifications. In addition, the review noted that access and equity issues should be addressed in qualifications, competency standards and support materials, in order to increase access to training of under-represented groups. Another recommendation addressed the issue of consistency by suggesting that one implementation guide, including nominal hours, should be developed for all States and Territories.

Focus on generic skills

Certificate I in Construction was developed to assist students to make the transition from schools to VET. Certificate I is common to Certificate II and all Certificate III qualifications. Six core units from 'General construction' (*) and three core units from 'Civil construction' needed to be achieved for Certificate I in Construction under the VET-in-Schools program. These units comprise a set of essential construction industry skills and include a number of generic competencies. The nine units of competency are:

- *Carry out interactive workplace communication (generic)
- *Carry out OHS&W requirements (generic)
- *Plan and organise work (generic)
- *Carry out measurements and calculations (generic)
- *Use simple levelling devices
- *Handle construction materials and safe disposal of waste
- Use hand and power tools
- Use small plant and equipment
- Read and interpret plans (generic)

Although the additional nine core competencies for Certificate II in Civil Construction are mainly technical in nature, many also include generic factors. These include:

- Site drainage/dewatering
- Carry out manual excavation
- *Carry out concreting simple forms
- Spread and compact materials manually
- Monitor machine operations
- Control construction traffic
- Assist with excavation and support installation
- Repair pavements
- Carry out concrete work

Other units of competency in the general construction package can be used as electives in a civil construction qualification. However, all the core units and the minimum number of elective units stipulated in the one qualification package must be completed before additional units from another qualification package can be included.

Certificate III in Civil Construction has incorporated the 18 core competencies in Certificate II plus additional core competencies and elective options for the different pathways.

The performance levels for the key competencies were indicated for each competency. These units generally covered all the seven Mayer key competencies at performance level 2 or 3. However, a number of units did not cover 'Using technology' or 'Using mathematical ideas and techniques' at all or only covered them to performance level 1.

Entertainment Industry training package

Background

Culture Research Education and Training Enterprise Australia (CREATE) is the national ITAB for the cultural industries. It works with industry, unions and a network of eight State and Territory ITABs, to ensure that the cultural industries receive high quality, relevant and accessible vocational education and training.

CREATE's industry coverage includes:

- community cultural development
- design
- entertainment and live theatre
- film, television, video and radio
- libraries
- performing arts
- music
- museums and galleries
- visual arts and crafts
- multimedia
- writing, publishing and journalism
- zoos and botanic gardens

CREATE has been responsible for the development of a national training package for the entertainment industry. The package offers structured training and assessment for technical, venue operations and front-of-house staff for all types of events and venues: small, large, metropolitan and regional. Before 1998, workers in these occupations had few opportunities to obtain qualifications because there were few qualifications or registered training organisations delivering training and/or assessment programs in these areas. The Entertainment Industry training package was endorsed in 1998. It enabled individuals to have their existing skills and knowledge recognised formally, without having to undergo any unnecessary training. In addition, employees were able to undertake training and assessment at times and in locations that suited their needs and those of their employers.

The qualifications at each AQF level included a set of compulsory or core units and other elective units. The number of units varied for individual specialist qualifications but, in general, the number of units required for each qualification were as follows:

- Certificate I = 3 compulsory units + 3 other units
- Certificate II = 4 compulsory units + 6 other units
- Certificate III = 3 compulsory units + 5 other units
- Certificate IV = 5 compulsory units + 6 other units
- Diploma = 2 compulsory units + 10 other units
- Advanced diploma = 12 units

One hundred and forty five (145) competency standards were developed spanning three streams and many sub-streams. Where possible, units of competency already developed for other training packages such as hospitality or business services, were used. The package allowed individuals to 'mix and match' competency standards to gain a qualification across these areas:

- administration
- audiovisual
- cinema projection
- communications
- costume design
- event management
- front of house
- frontline management
- general technical
- human resources
- industry knowledge
- lighting
- make-up
- marketing and promotion
- occupational health and safety
- scenic art
- set manufacture
- small business
- sound
- stage management
- staging
- technical management

Review process

The review of the Entertainment Industry training package was delayed until 2001 because the implementation of the training package had taken longer than in other industries. This was because few registered training organisations existed in this industry sector to implement the training package.

Focus on generic skills

The Certificate I in Entertainment had three compulsory units involving generic skills. These units include:

- Apply organisation and industry knowledge
- Follow heath, safety and security procedures
- Manage own work and learning

'Follow health, safety and security procedures' covered all seven key competencies at performance level 1. The unit 'Manage own work and learning' covered five of the key competencies at performance level 1, excluding 'Using technology' or 'Using mathematical ideas and techniques'. While the industry knowledge unit included 'Using technology' but not 'Planning and organising activities', 'Solving problems' or 'Using mathematical ideas and technique'.

In addition to the compulsory units, three other units were chosen. The other units are related to basic skills which include providing first aid, using hand tools, 'Bump in the show' and 'Bump out the show' (that is, setting up and taking down the set structure/stage, sound and lighting equipment). One of the other units may be selected from any other related endorsed training package.

There are few employment outcomes in the entertainment industry from Certificate I and those people wanting a career path in the entertainment industry are encouraged to seek a Certificate II, which incorporates all the Certificate I competencies.

Certificate II in Entertainment required ten units; four of which were compulsory. These were:

- Apply organisation and industry knowledge
- Follow heath, safety and security procedures
- Provide first aid
- Work with others

The specialist qualification Certificate II in Entertainment (Front of House) required five compulsory units; the additional unit was 'Respond positively to patrons'. The unit 'Work with others' covered six of the seven key competencies at performance level 1, excluding 'Using mathematical ideas and techniques'.

To attain a Certificate III in Entertainment eight units were required; three compulsory and five other units. Besides 'Front of house' there were ten specialist qualifications. Each specialist qualification nominated the compulsory units required. However, they all required the two units:

- Follow heath, safety and security procedures
- Provide first aid

Certificate IV in Entertainment required five compulsory units and six other units. The five compulsory units were also required in the ten specialist qualifications. These included:

- Co-ordinate technical operations
- Establish and manage resources
- Implement health, safety and security procedures
- Manage systems
- Participate in, lead and facilitate work teams.

For the Diploma in Entertainment the two compulsory units were:

- Establish and maintain a safe secure working environment
- Establish and manage effective workplace relationships

Each of the ten specialist areas nominated varying numbers of compulsory units and other units to a maximum of 12 units.

Hospitality training package

Background

Tourism Training Australia in consultation with the representatives of the hospitality and tourism industry developed the Hospitality training package, which was endorsed in 1997. It covered the following areas:

- Commercial cookery
- Food and beverage
- Gaming
- Commercial catering
- Housekeeping
- Patisserie
- Kitchen attending
- Hospitality security
- Hospitality management
- Asian cookery
- General units

There were common core units for the tourism and hospitality qualifications and additional core units for the hospitality qualifications. For example, the unit entitled, 'Work with colleagues and customers' (including communicate in the workplace, customer service, personal presentation standards and working in a team) was common to both training packages, as well as the unit, 'Follow health, safety and security procedures' (including following workplace procedures, dealing with emergencies, maintaining safe personal standards and providing feedback).

The unit, 'Develop and update hospitality industry knowledge', was a core unit for hospitality only. General units included 'Follow workplace hygiene procedures', 'Communicate on the telephone', 'Process financial transactions', 'Access and retrieve computer data', 'Coach other in job skills', and 'Monitor workplace operations'. There were also units relevant to a particular occupational stream or functional area.

Units of competence relating to generic skills appeared throughout the tourism and hospitality qualifications framework. Whether these units were core or elective units depended upon the nature of the qualification and the workplace outcome sought. Additional generic skill units from other endorsed packages (such as business services) could also be selected as electives.

Review process

During the review of the Tourism and Hospitality training packages, concern was raised about the progression of generic skills within the qualifications framework. Thus, a mapping exercise was conducted which related generic skills in the Tourism and Hospitality training packages to the different AQF levels (TTA 2001).

In particular, the concerns related to the structuring of courses by registered training organisations (RTOs) where 'higher level' skills became core at Certificate IV and above, but the required underpinning skill units were not core units in Certificates I, II, or III. In addition, these basic underpinning units were not clearly identified as core units at the higher levels. Consequently, registered training organisations (RTOs) might not include the basic units at any point in the learning pathway. A good example of this difficulty was in the area of finance.

In the revised qualifications framework, where basic skill units were a pre-requisite to achievement at the higher level unit, the basic skill units will appear as core units in the higher level qualification. This approach means unnecessary core units do not appear at the lower AQF levels, but will be covered where necessary at higher levels (TTA 2001).

Focus on generic skills

The hospitality industry is customer-service driven. This means that people skills are an essential part of working in the industry. These skills include:

- good communication skills

- a strong customer focus
- smart presentation and grooming
- organisational skills
- ability to work under pressure
- good technical skills and knowledge.

The core units from the Hospitality training package included:

- Work with colleagues and customers
- Develop and update hospitality industry knowledge
- Follow workplace health, safety and security procedures

These units covered five of the seven Mayer key competencies at performance level 1 (that is, competently following instructions). In general, they did not include 'Using technology' or 'Using mathematical ideas and techniques'.

General units included 'Follow workplace hygiene procedures', 'Communicate on the telephone', 'Process financial transactions', 'Access and retrieve computer data', 'Coach others in job skills', and 'Monitor workplace operations'. A number of these include the key competencies 'Using technology' or 'Using mathematical ideas and techniques'.

Information Technology training package

Background

The Information Technology and Telecommunications Industry Training Advisory Body (IT&T ITAB) represented Australia's communication and information technology industries at a national advisory level for vocational education and training. Information technology (IT) was an emerging industry and needed a training package which could be readily updated to keep pace with rapid advances in technology. The IT training package was first developed in 1998 and a new version endorsed in 1999.

The1999 IT training package supported 16 qualifications. These included one at AQF Level 2, Certificate II in IT, three at AQF level 3, Certificate III in IT (General, Network Administration or Client Support), and seven at AQF 4, Certificate IV in IT (Database Administration, Network Management, Multimedia, Technical Support, Programming or Systems Analysis and Design). In addition, it supported five qualifications at AQF Level 5, Diplomas in IT (Systems Administration, Software Development, Business Analysis, Network Engineering and Multimedia Integration).

A qualification was based on the successful completion of a set of compulsory core units and a choice of elective units.

Review process

In July 2000, the IT&T ITAB received funding to review, enhance and update the competency standards in the IT training package ICA99. The ITAB developed ten new units of competence and revised the range of variables and evidence guides of 100 competency standards. The enhanced IT training package was submitted for endorsement in March 2001.

New competency standards were developed to provide foundation skills for other units of competence. These included:

- Operate a personal computer
- Operate a word processing application
- Operate a spreadsheet application
- Operate a database application
- Operate a presentation package
- Send and retrieve information over the Internet using browsers and email
- Provide remote helpdesk support
- Create a simple mark-up language document to specification

- Use SQL to create database structures and manipulate data
- Produce basic client side script for dynamic web pages

Changes to the existing units of competency were designed to reduce the wide-ranging interpretations being applied in the assessment of the units of competence. The most significant change in the evidence guides section related to the resources section. This section now allowed candidates, registered training organisations and small business operators with trainees to identify what resources were required for each unit of competence.

Assessment changes indicated greater guidance on the industry preferred workplace conditions that should be present during assessment occurring under workplace simulation (workplace simulation criteria and authentic work practices).

New qualifications included the Certificate I in IT, which provided most of the core units for Certificate II in IT (Applications). The six core units for Certificate I were:

- Operate a personal computer
- Operate a word processing application
- Operate a spreadsheet application
- Operate a database application
- Operate a presentation package
- Send and retrieve information over the Internet using browsers and email

This course was seen as an equity and access course designed to attract new people into IT courses. People gaining a basic qualification in IT (as opposed to business services) might be more likely to continue to a higher IT course than to switch across to IT from business services.

The Certificate II in IT (Applications) was a new qualification proposed for data entry operators or data centre operators. It required eight core units of competence and a minimum of four elective units of competence. Two of the elective units may be drawn from equivalent qualification levels in any other endorsed training package. The core units, in addition to those for Certificate I in IT, were:

- Apply occupational health and safety procedures
- Communicate in the workplace

Certificate IV in IT (Helpdesk) and (Telesales) filled gaps that were identified by stakeholders. Additional elective units were provided for other certificates.

Focus on generic skills

The Certificate II in IT qualification from ICA99 included eleven compulsory core units of competency and four elective units, two of which could be drawn from any other endorsed training package. The core units were related to teamwork, using IT solutions and supporting IT solutions. The core units included:

- Work effectively in an IT environment
- Communicate in the workplace
- Apply occupational health and safety procedures
- Operate computer hardware
- Operate computing packages (*see four new core units for Certificate I in IT*)
- Maintain equipment and consumables
- Design organisational documents using commercial computing packages
- Integrate commercial computing packages
- *Connect hardware peripherals
- *Install software applications
- *Maintain system integrity

The performance levels for the key competencies were indicated at the end of each competency. These core units covered all the seven Mayer key competencies at performance level 1. Three units (*) also required key competencies at performance level 2.

The Certificate III in IT from ICA99 had either three or six core units. For example, in Certificate III in IT (Software Applications) there were three core units covering all seven Mayer key competencies at performance level 2. These core units included:

- Develop macros and templates for clients using standard products
- Customise packaged software applications for clients
- Provide advice to clients

The Certificate IV in IT from ICA99 had between eight and 26 core units. These included generic skills, in particular, communication with clients at higher performance levels, time management and project integration skills. For example, core units at AQF Level 3 included:

- Provide advice to clients
- Create user and technical documentation
- Relate to clients on a business level
- Provide one-to-one instruction
- Apply skills in time management
- Apply skills in project integration
- Develop macros and templates for clients using standard products
- Customise packaged software applications for clients

Additional core units in Certificate IV in IT were related to generic skills. For example, these included:

- Determine client business expectations and needs
- Co-ordinate and maintain work teams
- Confirm client business needs
- Contribute to the development of a strategy plan
- Develop and present a feasibility report
- Apply skills in cost management
- Apply skills in quality management

Additional core units of competency at AQF Level 5 or diploma level were more managerial and more generic in nature. For example, these included:

- Prepare disaster recovery/contingency plans
- Manage human resources
- Manage quality

Metal and Engineering training package

Background

The manufacturing and engineering industry has a wide range of industry sectors and specialisations, including innovation and cutting edge technologies, mechatronics and robotics. The occupations within the sector are concerned with jobs involved in conception, design, manufacturing, assembling, installing, repairing, packaging and selling the manufactured products. Individuals with metal and engineering skills also work in many other areas including building and construction, mining, health, the food areas and hospitality.

The Manufacturing, Engineering and Related Services Industry Training Advisory Body Ltd (MERS ITAB) is a non-profit company, formed in January 1996 through an amalgamation of the National Metal and Engineering Training Board and the National Aeroskills Project. The boating industry is also included under the MERS ITAB.

In consultation with the industry, the MERS ITAB developed the Metal and Engineering training package, which was endorsed in late 1998. All qualifications include the foundation units of competency and the core units required for each particular qualification level. The core units are structured so that, in general, the higher the qualification level the greater the number of core units required. All Band 1 core units must be included in AQF III qualifications. The rest of the qualification consists of specialisation units, including those

for the mechanical, fabrication and electrical/electronics trades. Specialisation groups also included drafting and drawing, planning, quality assurance, communications, training and occupational health and safety.

The Certificate III in Engineering metal fabrication trade includes heavy metal work (Boilermaking), light metal work (Sheetmetal), pattern making and casting and moulding specialisation units. The Certificate III in Engineering (mechanical trade) includes machining, fitting, fitting and turning, toolmaking, electroplating and diesel fitting specialisation units. Certificate III in Engineering (electrical/electronics trade) includes electrical fitting, electrical mechanics, and fitting instruments units of competence

Review process

MERS ITAB undertook case study research into the adequacy of the Metal and Engineering training package in terms of how well it provided 'leading edge' skills within enterprises. The Leading Edge Skills Project final report was delivered in April 2001.

The Metal and Engineering training package is undergoing a review and enhancement for re-endorsement in 2002. Point weightings were allocated to units by MERS ITAB in consideration of the complexity of the skill, the amount of underpinning knowledge and estimated amount of training required. A point value was not allocated to the foundation units and stakeholders felt that this needed to be re-considered to ensure that sufficient time was allowed to include and value them in all qualifications. The Core Band 1 units were only allocated 2 points each.

The points weighting was used by some organisations to allocate training or assessment funding and other resources on a pro rata basis. This approach was useful at the whole qualification level (e.g. 96 points = $xxxx) but it was not valid to extrapolate these equations down to the unit level.

In addition, stakeholders considered the unit, 'Assist in the provision of on-the-job training', was not appropriate for first year apprentices, although it was very important for third year apprentices. In addition, the unit 'Perform computer operations' was not considered essential for apprentices as they were rarely allowed to touch computers on the job.

Other issues related to the adequacy of competency-based assessments, which identified individuals as competent or not yet competent and did not provide for any graded differentiation between students. Some stakeholders felt that assessments were not consistent and that moderation was required to ensure consistency. Other issues concerned quality training and promoting skills excellence through competition.

Focus on generic skills

All qualifications in the package included the four foundation units. These were:

- Undertake interactive workplace communication
- Apply principles of OHS&W in work environment
- Apply quality procedures
- Plan to undertake a routine task.

The nine Core Band 1 units of competency were:

- Apply quality systems
- Organise and analyse information
- Operate in a work-base team environment
- Assist in the provision of on-the-job training
- Measure with graduated devices
- Plan a complete activity
- Perform computations basic
- Perform computations
- Perform computer operations

There was also a Core Band 2 set of five common units of competency. These included:

- Write reports
- Research and prepare presentations and reports

- Perform mathematical computations
- Use graphical techniques and perform simple statistical computations
- Operate in an autonomous team environment
- Interpret quality specifications and manuals

The units of competency from the specialisations also included some generic skills. For example, 'Draw and interpret sketch', and 'Interpret technical drawing' were in the 'Drawing, Drafting and Design' specialisation, and 'Use hand tools' and 'Use power tools/hand held operations' were from the 'Maintenance and Diagnostics' specialisation. Other specialisation areas included generic skills, for example, planning, quality assurance, communications, training and occupational health and safety.

The performance levels for key competencies were indicated for each competency. These units generally covered all the seven Mayer key competencies at performance level 2 or 3. However, a number of units did not cover 'Using technology' or 'Using mathematical ideas and techniques' at all or only covered them to performance level 1.

Retail training package

Background

In consultation with the industry, the National Wholesale Retail and Personal Services Industry Training Council Ltd developed the Retail training package, which was endorsed in 1997.

The qualifications at each AQF level included essential units (Phase A and B) and elective streams units (Phases C, D and E). The three main streams included Training (Phase C), General Selling (Phase D) and Administration/Finance (Phase E).

Certificate I in Retail Operations was awarded on the basis of successful completion of one integrated competency assessment for all five Phase A essential units.

For Certificate II in Retail Operations all the essential units in Phases A and B and all the units from one elective stream in Phase C were required. The electives were C1 General Selling, C2 General Fresh Food Selling or C3 Clerical Administration. Three integrated competency assessments for Phases A, B and C needed to be successfully completed.

Entry to Certificate III in Retail Operations assumes competency at Certificate II level. It was designed for more experienced workers in the retail industry whose work required extensive product knowledge and involved responsibility for co-ordinating/supervising the work of others. All essential units in Phases A and B, and four units from one of the elective streams in Phases C, D or E were required. Three integrated competency assessments for Phases A, B and one of C, D or E needed to be successfully completed.

Certificate IV in Retail Management assumed competency at Certificate III level and was designed to prepare employees for leadership roles in the retail sector. All essential units from Phases A, B, C and D, and any two units from the elective units must be completed. The five elective streams included marketing, store operations, property, buying and administrative. Four integrated competency assessments for Phases A, B, C and D needed to be successfully completed.

Entry to the Diploma in Retail Management required the completion of the Certificate IV in Retail Management. All essential units and one unit form the elective specialist units needed to be successfully completed.

Review process

The Stage 1 review report for the Retail training package was submitted to ANTA in March 2000. Review participants suggested that retail work ethic, attitude, expectations, and grooming and presentation should be included. However, these were found by the consultants to be covered in the evidence and performance criteria in AQF Level 1.Similarly business communication and report writing were included in underpinning knowledge and skills but could be more explicitly expressed in Certificate IV.

Focus on generic skills

Certificate I in Retail Operations was designed as a pre-vocational program. The five essential units were compulsory and also formed part of the essential units for Certificate II (Phase A). These were

- Communicate in the workplace
- Perform routine housekeeping duties
- Apply safe practices
- Work effectively in a retail environment
- Operate retail equipment

'Communicate in the workplace' and 'Perform routine housekeeping duties' included six of the seven key competencies to performance level 1 (excluding 'Using technology' in the former and 'Communicating ideas and information' in the latter). 'Apply safe working practices' and 'Work effectively in a retail environment' included five key competencies at performance level 1 (excluding 'Using technology' and 'Using mathematical ideas and techniques'). All seven key competencies were covered in 'Operate retail equipment'.

'Work effectively in the retail environment' covered knowledge, understanding and skills considered essential to perform work to the required standard. This included literacy skills to read workplace documents and rights and responsibilities of employers and employees in the retail workplace. Operational knowledge of industrial relations, occupational health and safety, equal opportunity employment and anti-discrimination legislation was required. The unit also included work ethics, interpersonal conflicts, staff counselling and disciplinary procedures, grievance procedures, personal animosity, discriminatory behaviour, harassment and equal opportunity issues.

In addition to Phase A units, Certificate II in Retail Operations had Phase B units. These essential units included:

- Interact with customers
- Apply point of sale handling procedures
- Perform stock control
- Minimise theft

'Interact with customers' duties' included six of the seven key competencies to performance level 1 (excluding 'Using technology'). 'Apply point of sale handling procedures' included all seven key competencies to performance level 1.

For Certificate IV in Retail Management essential units included:

- Co-ordinate work teams
- Maintain employee relations
- Implement staff training
- Assess workplace competencies

'Co-ordinate work teams' included six of the seven key competencies to performance level 2 (excluding 'using technology').

Conducting assessments

The assessment guidelines note that individual units of competence can be packaged (or linked together) to form clusters which depict logical work activities. The assessment of such clusters requires holistic forms of assessment to ensure that assessment is not narrowly based on tasks but embraces all aspects of workplace performance. This approach seeks to combine knowledge, understanding, problem-solving, technical skills, attitudes and ethics into assessment tasks.

The assessment guidelines also stipulate that evidence gathering methods should be appropriate to the context, the assessee and the assessor, and that they should meet the principles of validity, equity, authenticity and sufficiency. To ensure validity it is suggested that at least two methods of evidence collection be used for each assessment, and that assessment should occur on more than one occasion for each competency standard. In addition, supplementary and indirect forms of evidence should be used to support direct evidence of

performance. This is to extend the range of situations covered by the assessment and provide information on performance in critical situations (for example, while dealing with conflict and breakdowns).

In addition, self-assessment can also be integrated into the assessment process, and constructive feedback should be provided during and after the assessment has been conducted.

Summary

This section has provided an overview of the major findings that were derived from the examination of the training packages for the ten industry sectors. Because of the ANTA guidelines for training package developers, the seven Mayer key competencies and the related performance levels have been identified for each unit of competency. The Mayer key competencies were essential at all AQF levels with performance levels expected at higher levels at higher AQF levels. 'Using technology' was not highlighted in some units of competency but was essential in all industries.

In addition, core or compulsory competencies and elective units are identified for each AQF level qualification. For Certificate I and II the core competencies are related to generic skills and the key competencies identified for them are generally at performance level 1 or 2. At AQF level 3 and 4 the core competencies are also generic skills but tending towards management and supervisory roles and so key competency performance levels expected are also higher (level 2 or 3).

The core or compulsory units of competency cover the essential skills for each industry sector. For all industry sectors these included:

- Working with colleagues or in a team
- Communication in the workplace
- Follow health, safety and security procedures

and in the majority of industry sectors the essential skills also included:

- Customer service
- Professional behaviour, presentation and work ethics
- Plan daily work routine
- Develop or update industry knowledge

While important in all industries, 'Acting to minimise emergencies or use hazardous substances safely' was particularly emphasised in agriculture, ARC Blood Service, civil construction and retail industries, where it was a core competency.

Assessment of the units of competence should reflect the clustering of units of competence into logical work activities. The assessment of such clusters requires an integrated holistic approach be used where possible, to ensure that assessment is not narrowly based on tasks but embraces all aspects of workplace performance. This approach seeks to combine knowledge, understanding, problem-solving, technical skills, attitudes and ethics into assessment tasks. In addition, the means of evidence collection for assessment of units of competence should meet the principles of validity, equity, authenticity and sufficiency.

Table 11 provides a tabular representation of the core competencies included in the training packages examined. These competencies also reflect the various generic skills and key competencies discussed in the literature review and identified in the major findings.

Table 11: Core competencies in training package

Industry sector and training package	Work with colleagues or in a team	Communication in the workplace	Customer service	Professional behaviour or presentation standards (work ethics)	Follow health, safety and security procedures (provide first aid)	Develop and update industry knowledge (and requirements)	Plan daily work routine	Act to minimise emergencies or use hazardous substances safely
Administration	✓	✓	✓	✓	✓	✓		
Agriculture		✓		@	✓	✓	✓	✓✓
Australian Red Cross Blood Service	✓	✓	✓	✓	✓		✓	✓
Civil Construction	✓	✓			✓		✓	✓
Community Services–Aged Care	✓	✓	✓	✓				
Entertainment	✓		✓ (Front of House)		✓	✓	✓	
Hospitality	@ ✓	@ ✓	@ ✓	@ ✓	✓	✓		
Information Technology	✓	✓	✓	✓		✓		
Metal and Engineering	✓	✓			✓		✓	
Retail	✓	✓	✓	✓	✓			✓

✓ unit of core competency required
@ combined in one core unit, such as 'Working with colleagues and customers'

Findings from the case studies

In this section the major findings from the case studies (see appendix 1) are reviewed in terms of how generic skills are being acquired and developed in companies. In general, companies tended to acquire employees with particular generic skills through their recruitment processes. Through specific on-the-job and off-the-job training and development activities, these employees further developed their generic skills.

Recruitment

Companies in this study ensured that their employees had essential generic skills and personal attributes through their recruitment processes. It was common for companies to select new staff based on presentation, personality and attitudes. From experience with employees the human resource (HR) staff had found that personality, attitudes and values were the hardest things to change. Therefore, they believed it was preferable to select staff, who already had the desired personality traits, attitudes and values.

Generic 'people skills' were also often requested by HR staff. These most usually referred to effective communication skills, customer courtesy and the ability to work in a team. They also included respect for individual clients and colleagues, sensitivity to cultural diversity and disability, and the ability to respond to the needs of clients, colleagues and the organisation. For some companies, presentation or appearance and grooming were also important 'people skills'. This was especially the case in the hospitality, retail and administration or business services industries. It was also specifically important for the employees of the large Australian Agriculture Company.

Findings from the case studies showed that applicants needed to demonstrate that they had an interest, preferably a career interest, in the particular industry, in which they sought employment. In addition, since all these companies could be considered to be learning organisations, or to have a learning culture, applicants were also required to demonstrate a willingness to learn.

Administration/business services

The case study for the Administration training package was the Douglas Mawson Institute of TAFE practice firm, aDMIT Solutions (see appendix 1). The practice firm was run like a real business in line with its mentor company's policies and practices. aDMIT Solutions undertook simulated commercial activities with other practice firms nationally and internationally. The recruitment processes for aDMIT Solutions followed those of its business sponsor, Speakman and Associates and their subsidiary Select Staff Pty Ltd, whose staff assisted with the job interviews. Recruitment of staff for aDMIT Solutions therefore emphasised a business-like appearance (presentation), personality (including the ability to work effectively with little supervision and people skills) and career interest in working in this industry.

Agriculture

In the agricultural industry, the Australian Agriculture Company (see case study in appendix 1) advertised its employment opportunities with the offer of formal recognition of national industry competencies, on- and off-the-job training programs and the opportunity to transfer to other cattle stations within its group. The main selection criteria used for the apprentice stockhands (Jackaroos and Jillaroos) were personality, interest in the industry and presentation (that is, a well-groomed appearance).

Australian Red Cross Blood Service (ARCBS)

It is important for the ARCBS recruitment and selection processes to identify people with the right attitudes and values for blood collection staff and volunteer positions. The ARCBS staff have endorsed five organisational values, including unity, service, fairness, creativity, and accountability. They have also documented the behaviours that underpin these values (see attachment to ARCBS case study in appendix 1).

In the development of the ARCBS training package, the nursing standard had to underpin the competency standards for blood collection staff. However, a nursing standard was not a minimum requirement for blood collection in other countries. This work was considered repetitive and under high regulation, while exceptional customer service was required to ensure the regular supply of voluntary blood donors in Australia. For blood collection staff and other related positions, the main selection criteria were personality, values, attitudes and people skills. These included communication skills, empathy for volunteers associated with client service, respect for all people, and awareness of cultural diversity and disability. Employees and volunteers were also required to maintain a warm, friendly disposition, pay attention to detail, complement quality assurance processes and adhere to the rules and regulations of the ARCBS, which ensured compliance with the Good Manufacturing Practice Act.

Civil construction

Thiess Pty Ltd (see appendix 1) was chosen as a case study for its particular learning culture in which employees are encouraged to access training, in particular, while working on civil construction projects. Theiss has taken the lead in training workers using the Civil Construction training package. As the work is generally project-based, communication and the ability to work in teams are essential skills.

At Thiess, workers are selected and promoted, not only on the basis of their technical competence but also on their individual performance, commitment, loyalty and compliance with company values and ethics. Company values and ethics emphasise safe working practices, a client focus, honesty, communicating openly, respect for the values of others, quality assurance and environmental and community awareness. In addition, employees are expected to demonstrate problem-solving, innovation, adaptability, flexibility, responsibility and time management. They are also required to develop an understanding of organisational culture and an awareness of the need for lifelong learning and the importance of having in place specific career goals and plans.

Community services in aged-care work

In the community services in aged-care industry sector (see Baptist Community Serivces–NSW and ACT case study in appendix 1) attitudes and values were believed to be even more important for staff than specific skills and knowledge. The two most important generic skills for this industry sector were communication skills and teamwork. Applicants for positions in aged care were required to have effective people skills, including a desire to help others and high-level communication skills. They were also required to have a full understanding of the practical implications of communication in an aged-care context (for example, understanding body language). In addition, they needed to show respect for individual clients (and colleagues) and the ability to work as part of a team. Volunteer experience would often be taken to indicate an appropriate work ethic and a career interest in the industry.

Entertainment

In the entertainment industry, the main selection criteria for front-of-house theatre staff (see Sydney Opera House Trust case study in appendix 1) were personality, interest in theatre and people skills. These would be demonstrated by applicants having had some exposure to the theatre, and experience in customer service and working with others. In addition, effective communication and language skills were also required. For trainees in the theatre technical areas, listening and numeracy skills were also considered to be essential.

Hospitality

For entry-level positions in the hospitality industry (see ACCOR case study on appendix 1), it was felt that the specific skills and knowledge for most jobs could be taught on the job, if the new staff had the right personality and attitude. The right personality included having an interest in people and in particular, a warm and caring nature. Also required were a well-groomed appearance (presentation) and generic people skills. These people skills included good communication skills, customer courtesy, and the ability to work in a team.

In addition, successful applicants also demonstrated the appropriate work ethic, punctuality, workplace safety and hygiene, and a career interest in the industry.

Information technology

In the information technology (IT) industry (see Aspect Computing case study in appendix 1), IT professionals, who generally have a university qualification, were selected for their problem-solving, time management and people skills. These include business communication skills, teamwork, a well-groomed appearance and a customer focus. For IT client support trainees the company advertised for applicants with skills for client contact, problem-solving and teamwork. In addition, successful applicants demonstrated an interest in working in this job or industry.

Retail

Recruitment for the retail industry (see Coles Supermarkets case study in appendix 1) emphasised personal attributes (or personality) and generic skills. The key personal attributes were a positive approach to work and life and a high motivation towards work. This included energy and enthusiasm, a work ethic (including commitment and flexibility), enjoyment of retail work, and an interest in a career in the retail industry. Initial screening of applicants evaluated their suitability for working with the public (presentation) and their reason for wanting a retail job (interest in the industry). A written test for basic skills related to retail processes was also required. The company required generic skills, which included effective communication skills, the ability to work as part of a team, and a willingness to learn. They also required applicants to be able to work effectively with little supervision, monitor their own work and look for continuous improvement of their performance. In addition, successful applicants required the ability to respond to the needs of clients, colleagues and the organisation, and the confidence to initiate action.

Table 12 provides information on the generic skills which were important to companies in their recruitment. This table does not include information on the Brisbane Institute of TAFE, Gateway campus, as they were not responsible for employing the apprentices or trainees in the metal and engineering industry sector.

Workplace induction processes

Induction processes

It was common for companies to develop the generic skills of new staff or trainees through a formal off-the-job induction/orientation training session. In many companies a 'buddy' system was used to assist the supervisor to induct new staff on the job. The 'official buddy', an experienced colleague, played the role of mentor and assisted by explaining the history of clients and procedures and by answering any questions.

Off-the-job induction training generally included a number of core or generic competencies, for example, workplace health, safety and security. This at times also included a focus on learning skills, such as how to find the most recent OHS&W legislation or up-to-date information. Similarly, issues related to industrial relations, including working conditions, and equal employment opportunities were usually covered in induction training. Generally, companies in this study felt that the training package did not cover sufficiently the topics of industrial relations and equal employment opportunity (EEO).

Administration/business services

The Douglas Mawson Institute of TAFE simulated company, aDMIT Solutions, was used by students for their training and assessment under the Administration training package. In addition, it was used for workplace assessment of information technology students when industry work placements were not available.

Each new member of the team was taken through an induction program by the aDMIT Solutions human resource manager. This training covered the general conditions of the contract, including seeking assistance if unable to perform tasks, OHS&W responsibilities, equal employment opportunity (EEO) and sexual harassment policies. The on-site induction at each client site for industry work placements included orientation to the facilities, fire evacuation and emergency procedures, and first aid facilities and officer. It also included the ergonomics/layout of workstations and specific training or induction on equipment being used.

Table 12: Generic skills sought by companies through recruitment processes

Industry sector and training package	Company selected for case study	Present-ation	Personality–personal attributes	Attitudes and values	Commun-ication skills @	Ability to work as part of a team @	Customer or client focus @	Interest in job and industry	Work ethic	Problem-solving	Learning skills
Administration	aDMIT Solutions–Practice Firm	✓	✓		@	@	@	✓	✓		
Agriculture	Australian Agriculture Company	✓	✓					✓			
Australian Red Cross Blood Service	Australian Red Cross Blood Service			✓	@	@	@ ✓	✓			
Civil Construction	Thiess			✓	✓	✓	✓	✓	✓	✓	✓
Community Services--Aged Care	Baptist Community Services			✓	✓	✓	✓	✓			
Entertainment	Sydney Opera House Trust		✓		@ ✓	@ ✓	@ ✓	✓			
Hospitality	Accor	✓	✓	✓	@ ✓	@ ✓	@ ✓	✓	✓		
Information Technology	Aspect Computing	✓			@ ✓	@ ✓	@ ✓	✓		✓	
Retail	Coles Supermarkets	✓	✓		✓	✓	✓	✓	✓		✓

✓ generic skills sought by companies
@ people skills sought by companies

Agriculture

In the Australian Agriculture Company all new staff had a full week of induction at the cattle station homestead. The emphasis of the training was on professionalism, that is, personal work ethic, including courtesy to other people, enthusiasm for the job and maintaining a high standard in personal presentation (grooming and behaviour). The need for self-development and workplace health and safety were also covered. In addition, job-specific skills, such as the risks in the job, introduction to horsemanship, first aid and fencing were covered. New staff were also expected to be self-reliant, and accordingly the skills for cooking nutritional meals on camp outs were also included in the induction program.

Australian Red Cross Blood Service (ARCBS)

The Australian Red Cross Blood Service had prepared a National Induction Toolkit, in both hard paper copy, and CD-ROM format, for all new staff. In addition, a face-to-face off-the-job induction program was attended by most new staff. The length of the induction program was usually two days but this varied between States, centres and business units. Essential topics included the ARCBS vision, mission and values, compliance with the Good Manufacturing Practice Act, workplace health, safety and security, equal employment opportunity (EEO) policy, EEO for women, awareness of cultural diversity, and sexual harassment policy. There were also site-specific induction topics. An employee orientation checklist, which team leaders used to ensure all employees new to the team received appropriate orientation on the job was also provided. The general topics covered in the on-the-job induction included the human resources information systems, blood management system, quality system and good manufacturing practice, workplace learning and development system (and individual portfolio), OHS&W management system and payroll (working conditions).

Civil construction

On the commencement of work, all new employees were involved in induction training which focussed on company values and ethics, and occupational health and safety. At the commencement of a new project, all members of the project team would work on a 'work activity briefing' to establish training needs and resource requirements for the completion of the project. Job safety procedures and environmental issues were also discussed during the briefing session. Communication skills, teamwork, safe working practices and maintaining a client focus were major generic skills emphasised in this approach to learning in teams.

Community service

In the aged-care industry sector, the Baptist Community Serivces–NSW and ACT (BCS) implemented a standardised orientation or induction program for all new employees and volunteers. This program was used for the promotion of the organisation's goals, mission statement, values and the drive for continuous improvement. Each new person received a copy of the BCS employee and volunteer handbook. The handbook and induction program covered the corporate organisation, work ethics, working conditions and occupational health and safety. In addition, the supervisor explained to each new person, their role in the facilities or program. They were also given self-directed learning workbooks, which covered other generic topics. A 'buddy' system was also used in the induction of new staff and volunteers in community care and nursing homes in aged-care work (see Baptist Community Services case study in appendix 1).

Entertainment

In the entertainment industry case study, the Sydney Opera House front-of-house staff and trainees undertook one week of off-the-job induction training. This covered theatre venue awareness, evacuation procedures, disability awareness, first aid and customer service. They also had a 'buddy' system where new staff worked alongside an experienced colleague in their first three shifts on the job. For casual theatre technicians, the induction training included orientation to the theatre complex, first aid, OHS&W and theatre terminology.

Hospitality

In the hospitality industry case study, new staff had one day of induction and orientation, when they first came to an Accor property. This was followed by three months on-the-job induction training. Two core

competency units 'Follow workplace health, safety, security and hygiene procedures' and 'Safe lifting' (manual handling) were delivered off the job. In addition, Accor staff had written a learning program to address equal employment opportunity (EEO) and industrial relations issues for new staff. An induction manual was also prepared. In each department, a 'buddy' system was used to assist the qualified workplace trainer and the supervisor to provide on-the-job induction for new staff.

Information technology

In the information technology industry case study, Aspect Computing new staff and trainees attended off-the-job induction training for three weeks. This covered Certificate II in Information Technology competencies, which included occupational health, safety and welfare, workplace communication and working in teams. It also included other topics, for example, professional behaviour, personal presentation and grooming, and public speaking.

The company also had a workplace learning culture focussed on holistic training and all staff positions were described in terms of the industry-endorsed competency standards. The national competencies had helped with the descriptions of the skills required and fostered self-assessment by staff. The staff were encouraged to 'fill in the gaps', which often related to generic or 'soft' skills. Personal training plans were also developed by staff and monitored by the Staff Services department. This was used to update the skills register and workers' curriculum vitae.

Metal and engineering

Staff at the Gateway campus of Brisbane Institute of TAFE (BIT) successfully tendered and delivered a pre-employment course for the metal and engineering industry. It consisted of the four foundation compulsory core competency units from the training package. These included 'Workplace communication', 'Applying principles of OHS&W in the work environment', 'Applying quality procedures', and 'Planning to undertake a routine task'. The students also undertook a small practical task in a simulated workplace (workshop) and a vocational placement during the course. From Core Band 1 in the training package, four units were undertaken. These covered taking measurements, performing basic and further computations (mathematical techniques) and performing computer operations. Five generic units from a particular stream or pathway, (that is, Mechanical, Fabrication or Electrical/Electronics pathways), were also included.

The BIT Metal and Engineering faculty staff believed that the essential communication skill for apprentices was the ability to read technical drawings, and the essential technical skill was the ability to use the basic tools of the trade. These were reflected in compulsory stream units. The success of the program was evaluated by the number of participants who obtained apprenticeships or employment in the industry. The majority of students obtained apprenticeships, and this was taken as an indicator that the employers wanted their new staff to have the generic skills covered in this pre-employment course.

Retail

In the retail industry, all Coles Supermarket staff and trainees undertook one day of off-the-job induction training at head office, before taking up a position in a store. This induction program covered the Coles culture (values and work ethic), behavioural expectations and responsibilities (for example, honesty, punctuality, respect for customers and colleagues, and non-discriminatory practices). In addition, it covered basic hygiene and occupational health and safety, especially fire escape drill. The Coles store structure, which included supervision, training opportunities and career pathways, was also explained in the off-the-job induction training. Staff were also given an activity sheet to take with them to the store, so that they could record workplace procedures, such as fire evacuation meeting places and whom to contact if unable to work.

Table 13 provides information on generic skills which were important to companies in their induction programs.

On- and off-the-job training in the workplace

In the case studies, the registered training organisations, including companies and TAFE institutes, supported the integration of generic and technical skills training and development. They also supported a variety of learning strategies to develop generic skills in employees. A number of learning strategies were used in on- and off-the-job training. These are described below.

One-to-one or small group training

In the case study companies, on-the-job training was conducted by a qualified workplace trainer or supervisor on a one-to-one or small group basis. For example, the head stockman on the cattle station was the workplace trainer for the trainee stockhands (see AACo case study in appendix 1). Six core or generic units were required for all staff. These included:

- Communication
- Planning daily work
- Industry knowledge
- Health and safety for work
- Personal work ethics—courtesy and enthusiasm
- Personal skills—housekeeping duties

Learning guides or activities sheets

Learning guides or activities sheets were given to trainees to provide practice activities or written tasks to be completed while on-the-job. In most companies the training package learning materials had been adapted and enterprise-specific material added to produce their own learning guides or activity sheets (see AACo and Coles case studies in appendix 1). This structured, self-paced learning remained activity-based.

Mentoring or coaching

A trained workplace mentor or coach was used to guide employees while working. For example, the role of trained workplace mentor was often to develop the generic skills of the information technology professionals and trainees, such as enhancing communication, presentation and negotiation skills (see Aspect Computing case study in appendix 1). This structured, self-paced learning encouraged 'learning by doing' with the guidance of a mentor. Any risk of the project not meeting the client's requirements was managed as the mentor would ultimately be responsible for the work.

Case conferences

In aged-care work (see Baptist Community Services case study in appendix 1), case conferences were conducted with staff members where carers discussed the resident's care plan, talked about the resident's behaviour and analysed the reasons for it. The importance of communication between nurse, carer and client was emphasised here. In addition, the team members applied their knowledge to solve problems and to work out applications for each resident.

Recording difficulties and successes

In aged-care work (see Baptist Community Services case study in appendix 1), workbooks were also used on the job to record difficulties or successes, and the different strategies used by staff with individual residents during a shift. Questions about these strategies were then asked by staff at the time of handover to the next shift. This process assisted learning and, once again, emphasised the importance of effective communication between nurse, carer and client, teamwork and application of skills and knowledge to solve problems for individual clients.

Learning teams

Most companies emphasised the importance of working in teams. In addition, the team approach was used to enhance other generic skills (see Aspect Computing case study in appendix 1). In the information technology industry, IT professionals usually work as a team. Thus, although the activity may be to work on a technical problem, a culturally diverse team was chosen to prepare a written report for a client. This enhanced a number of generic competencies, such as communication with colleagues and customers, working with cultural diversity, working in teams, problem-solving, delegation of tasks, planning and organising, project and time management, research and technical or report writing.

Table 13: Generic skills emphasised by companies or TAFE institutes during induction processes

Industry sector and training package	Company selected for case study	Present-ation, grooming	Commun-ication skills	Teamwork	Customer service (disability, cultural awareness)	Work ethic–professional behaviour–orientation to company	OHS&W and security, first aid, safe lifting, evacuation	EEO	Industrial relations or working conditions	Learning and self-develop-ment, trainer	Job specific–hygiene, tools or equipment
Administration	aDMIT Solutions	✓	✓ *	✓ *	✓ *	✓	✓	✓	✓	✓	✓
Agriculture	Australian Agriculture Company	✓				✓	✓			✓	✓
Australian Red Cross Blood Service	Australian Red Cross Blood Service		*	*	✓ *	✓	✓	✓	✓	✓	✓
Civil Construction	Thiess		✓	✓	✓	✓	✓	✓	✓	✓	✓
Community Services–Aged Care Work	Baptist Community Services NSW		*	*	*	✓	✓		✓	✓	✓
Entertainment	Sydney Opera House Trust		*	*	✓ *		✓			✓	
Hospitality	Accor	*	*	*	*	✓	✓	✓	✓	✓	✓
Information Technology	Aspect Computing	✓	✓ *	✓ *	*	✓	✓			✓	
Metal and Engineering	Pre-employment program		✓			✓	✓		✓	✓	✓
Retail	Coles Supermarkets	✓ *	✓ *	✓ *	✓ *	✓	✓			✓	✓

✓ generic skills sought by companies
* people skills already sought by companies in recruitment and selection process

Thiess Pty Ltd, the company selected for a case study in the civil construction industry (see appendix 1), recognised the importance of improving the capability of its workforce to maintain its competitiveness in a global environment. Thiess regarded itself as a learning organisation and established staff development programs to encourage innovation, creativity and leadership by developing its people. The vital unit was the workplace learning team, where team members needed to understand how to complement each other's skills, knowledge and efforts. The learning team approach, based on adult learning theory, encouraged the group to share experiences through open-ended, problem-centred learning. New learning was deliberately integrated with existing knowledge and experience. This emphasised the generic skills of communication, teamwork, willingness to learn, enthusiasm for improving performance, commitment, flexibility and adaptability.

Thiess Pty Ltd promoted a learning team approach on its construction projects. All staff, including engineers, supervisors, specialist support personnel, workers, and in some cases sub-contractors and suppliers, participated in the 'work activity briefing' (WAB). The aim of this activity was to identify and apply the best solution to a problem or opportunity within the project context. By using the learning team approach, Thiess was able to improve skill levels, safety, quality and efficiency and develop the project personnel (or future project managers). By rotating the chair for WAB meetings, natural leaders arose in the process and good relationships were developed. This relationship greatly enhanced the learning process. With increased empowerment, commitment and self-esteem of the participants were high. Staff worked in harmony, exceeded client expectations, and wanted to stay working with Thiess.

Formal training sessions

In most companies, the core competency units required an off-the-job training session conducted by a qualified workplace trainer. This was followed by activities to practise these skills off the job and on the job. When the employee was ready, holistic assessment of performance was conducted on the job.

In the hospitality industry (see Accor case study in appendix 1), the core competencies were covered in off-the-job training sessions. These included:

- Work with colleagues and customers
- Develop and update industry knowledge
- Follow workplace health, safety and security procedures

Other general units or generic skills included:

- Follow workplace hygiene procedures
- Communicate on the telephone
- Process financial transactions
- Access and retrieve computer data
- Monitor workplace operations
- Coach others in job skills

Role play and communication games were used to practice communication skills. Scenarios and case studies were used to analyse examples and situations with questions, such as 'What if this action were taken? or 'What did they do wrong?' or 'How would you fix it?'.

Mature-aged workers, and workers from multicultural backgrounds, were able to use their experience in the learning situations (training sessions) and co-facilitate in the learning groups, for example, for cultural diversity training. This added excitement to the learning process (see Accor case study in appendix 1).

For the development of information technology professional staff, Aspect Computing (see case study appendix 1) had an internal education program, which was conducted in the evenings. This training included management and human resources related courses, such as training for mentoring, public speaking, interviewing, conducting performance reviews, team building, and professional behaviour. It also included training sessions on service excellence, equal employment opportunity, working with cultural diversity, disability awareness and safe lifting (manual handling).

Seminars and workshops

Special seminars and workshop activities were used for staff training and development in the aged-care sector (see Baptist Community Services case study in appendix 1). Local experts, usually managers with the appropriate educational background, were used to present information on specific topics, for example, dementia or stroke. Demonstrations of practices, such as first aid, and other practical activities, were also arranged for these sessions.

Workshops and discussion groups were also organised for trainee stockhands by the Australian Agriculture Company training co-ordinator (see case study in appendix 1.

Discussion groups or meetings

Aspect Computing (see appendix 1) used focus groups, where developers, project managers and business analysts met off the job once a month to discuss technical or project management issues. This further developed their generic skills, such as communication, problem-solving and project management skills.

Self-directed learning activities

Self-directed learning activities, using video, interactive computer software and other learning material, or observation, interviews, personal experience or other project work, were also used for developing and enhancing generic skills.

Scenarios and case studies were also used in self-directed learning activities to analyse examples and situations with questions, such as 'What if this action were taken or this was said?' or 'What did they do wrong?' or 'How would you fix it?'.

Projects were sometimes assigned to staff as a learning and development activity. In the Sydney Opera House case study (see appendix 1), a staff member was assigned the task of implementing the training package in the company as a project.

Visits to other sites or organisations by individuals or teams were sometimes used as training and development activities for staff. In a number of the companies the staff were professional trainers and assessors, who were able to train or assess staff from other organisations. For example, the Australian Agriculture Company head stockmen were professional workplace trainers and assessors, who worked on other cattle stations within the group and for other companies. In the hospitality industry, Académie Accor staff were also involved in training and assessing external students for Certificate IV in Hospitality.

The Sydney Opera House qualified workplace assessors have conducted assessment for the recognition of current competencies (RCC) of skilled workers in a range of external enterprises within the entertainment industry. In this way staff at both the Hunter School of Performing Arts and the Civic Theatre in Newcastle obtained EITP qualifications. This enabled VET-in-Schools programs to be initiated in the area.

Workplace simulation

Practice firms

The case study for the Administration training package was the Douglas Mawson Institute of TAFE practice firm, aDMIT Solutions (see appendix 1). The practice firm operated in its own economic environment, and simulated commercial activities were undertaken with other practice firms nationally and internationally. It was run like a real business in line with the mentor company's policies and practice.

Administration students were first introduced to work in the practice firm before undertaking industry work placement. Students were able to complete tasks using their skills and knowledge, while working in the practice firm. This assisted the transfer of skills and knowledge to the workplace, as the student had experienced what was involved in assuming complete control of their activities. In the practice firm students had to ask for assistance if they required it, meet time constraints and present their work for evaluation. Thus generic skills, such as communication and time management skills, and attributes, such as self-confidence, were further developed. In addition, students sometimes undertook projects for the sponsor, Speakman and Associates and their subsidiary, Select Staff Pty Ltd.

Workshops, skill centres or pretend wards

Workplace simulation or practice workshops were used by metal and engineering apprentices to practise their skills at Gateway campus of Brisbane Institute of TAFE (see case study in appendix 1).

Clinical areas or pretend wards were used for training nurses in aged-care work at Baptist Community Service—NSW and ACT (see case study in appendix 1).

Trainee stockhands with the Australian Agriculture Company (see case study in appendix 1) often had their work on the cattle station arranged so that they could practise their skills in the workshop. It was arranged, so that they could spend half a day in the homestead workshop or attend a discussion group at the homestead.

Experiential learning

Experiential learning can help staff to understand that they can work in various ways to achieve their goals. Often these differences, although subtle, are very important to quality care. In one experiential activity (see Baptist Community Services case study in appendix 1), participants assumed the role of a nursing home resident for one day. The trainer assumed the role of the carer. The staff members assumed the role of the resident. The carer attended and treated them as she had seen other real residents being treated. When the training exercise was completed, the trainer conducted the de-briefing on a one-to-one basis. She helped participants talk about their training experience, empathise with residents and identify the practices and habits that they would need to change.

Role play

In most industries, scenarios are enacted to help participants empathise with clients and practise workplace situations. These are used, especially when teaching generic skills or soft skills, such as communicating on the telephone, dealing with difficult clients, or practising negotiation skills. Role play was used in workshops and training sessions for staff and volunteers in aged-care work (see Baptist Community Services case study) and in the hospitality industry (see Accor case study in appendix 1).

Further development of generic skills

A number of the companies had already developed partnerships with other tertiary education institutions to further develop the generic or technical skills of their staff and managers. There were three examples of these in the case studies.

Community services in aged-care work

The Baptist Community Services–NSW and ACT (see case study in appendix 1), in partnership with the University of Newcastle, had established an Aged Care Research and Education Services Unit. This innovative specialist unit linked all faculties in the Medical School with the BCS aged-care facilities. The link was two-way so that medical and nursing students practised in aged-care facilities and aged-care workers extended their training through articulation with the university, particularly at Australian Qualifications Framework Level IV.

Retail

Through Coles' partnership with Deakin University, and the formation of the Coles Institute (see Coles Supermarket case study in appendix 1), Coles provided industry-accredited training and education from entry-level traineeships through to university degrees. Coles paid for all training from Certificate II in Retail Operations through to Masters Degree of Business Administration (MBA) for its staff.

The Coles store structure was aligned to the Australian Qualifications Framework structure. Training was aligned to workplace events and provided at the appropriate time. Section managers, who had completed Certificate IV in Retail Management were encouraged to undertake Certificate and Diploma in Business Management courses with Deakin University.

Civil construction

Thiess Pty Ltd (see case study in appendix 1) had established a strategic learning partnership with the University of Queensland. This particularly benefited the engineering industry by hosting students on its mining sites. However, it allowed recognition pathways for Thiess people into Australian Qualifications Framework qualifications, such as Diploma or Advanced Diploma in Project Management, and allowed flexible delivery options for Thiess people who worked anywhere in Australia.

Strategies for the assessment of generic skills

The aged-care work case study provided information on holistic assessment processes, which were implemented to evaluate up to eight competencies in one assessment event. For example, observation techniques were used by the workplace assessor to assess the competencies required for communication with clients, and safe handling, showering, dressing and undressing of clients in one assessment event. Questioning techniques were used by the assessor to explore underpinning knowledge associated with these activities. Feedback on effective communication, caring and teamwork was also sought from clients and colleagues.

In any assessment the generic competencies, personal attributes, values and attitudes (such as caring and respect for others), were given equal weighting to technical skills. An individual could not be assessed as competent unless evidence of a caring relationship was also present. To ensure reliability at least two methods of assessment were used for each unit of competence. In addition, training and assessment were considered to be part of the continuous improvement program and all staff and volunteers were assessed on a regular basis.

Another example of holistic assessment was provided by the case study for the Agricultural training package. The learning strategies defined a cluster of units of competency into logical workplace activities, which generated evidence for assessment. For example, the training activity of 'Repair a fence' covered a cluster of units of competence, including generic competencies. This activity dealt with selecting the tools required, applying the technical skills of using those tools, understanding and following safety and quality principles, understanding and applying the requirements for fence maintenance and driving a vehicle. This approach illustrated the combination of knowledge, understanding, problem-solving, technical skills, attitudes and ethics into assessment tasks.

Assessment evidence-gathering also assisted in integrating self-assessment into the assessment process and promoting self-development and lifelong learning. This was illustrated in the case study where information technology professional staff had their jobs described in terms of the competency standards from the Information Technology training package. They were encouraged to undertake self-assessment by gathering evidence from clients and managers. To fill in the skill gaps, which were often generic competencies, such as communicating with clients or presenting information to clients, a trained workplace mentor would guide the IT professionals in learning these skills, while working on a client project.

Summary

This section has provided an overview of the major findings that were derived from the case studies conducted in the ten industry sectors. It has outlined how each of the ten industry sectors incorporated the generic skills into their training programs, and has described the variety of approaches that have been used.

Discussion, conclusions and implications

This section provides a discussion on whether there is sufficient focus in training packages on generic skills. It also discusses the approaches taken by providers to enhance the development of the generic skills in the classroom or in the workplace. A number of implications for the vocational education and training system are drawn from these findings.

Maintaining the focus on generic skills

In general, there seemed to be sufficient focus on the attainment of generic skills within each of the training packages examined. Sufficient focus is taken to mean that essential generic skills have been identified as underpinning the competency standards (for example, the seven Mayer key competencies) and as separate core or compulsory competencies for each qualification within each training package.

The provision of a large variety of experiences and learning strategies has been recommended in the guidelines for training package developers to ensure the acquisition of conceptual, technical and generic skills and the transferability of skills to new contexts. Assessment practices should also reflect a variety of strategies and include assessment of key competencies and generic skills. This approach should also be promoted in all professional development activities for teachers and trainers implementing the training packages.

However, future reviews of the training packages may need to consistently examine the focus on generic skills. There may be some generic areas, such as industrial relations, that may not be sufficiently covered in the training packages. In addition, the core competencies in each training package should be reviewed for the inclusion of appropriate work attitudes, values and ethics. These generic areas tend to be included as enterprise-specific competencies by large enterprises. However, it is important for teachers to be aware of the values, attitudes and personal attributes required by industry so that they can assist all VET students.

In addition, the emphasis on self-development and lifelong learning may depend on the learning strategies used, and the training culture of the institution or enterprise. Enterprises, which promote themselves as a learning organisation, tend to have sufficient focus on the development of generic skills in their workers.

Improving performance levels for key competencies

The three performance levels for the key competencies identified by the Mayer committee (1992) seem to be causing confusion for teachers and trainers. In some cases, they have been totally ignored. More information and explicit examples of key competencies and learning strategies included in the competency standards and assessment guidelines should alleviate concerns. However, higher performance levels may be needed. There has been a debate about performance levels for decades and five performance levels of competence are often preferred by practitioners to differentiate between novice, experienced worker and expert. This may also be the case for differentiating between the performance levels for key competencies of students, trainees, experienced workers, supervisors and managers.

Enhancing the development of generic skills

There were a number of key points noted in the case study findings on the approaches used to enhance the development of generic skills in employees and students.

Integrating technical and generic skills training

Whether training and assessment should integrate generic and technical skills, or treat them separately, has been debated by educators and trainers for decades. However, it is clear from the findings of this study that the more complex methodology of integrating generic and technical skills training is preferred because it makes generic skills more relevant to the job and hence increases the motivation to learn. In addition, a variety of experiences and learning strategies are required to ensure the acquisition of conceptual, technical and generic skills required for a job and the transferability of skills to new contexts.

The use of a variety of learning strategies also takes into account the different individual learning styles, which provides further motivation to learn. In addition, for experienced workers, a powerful motivator for further learning and qualifications is the recognition of current competencies.

Assessment practices should also reflect a variety of strategies and include assessment of key competencies and generic skills. For example, assessment strategies include holistic approaches, observation and questioning, presentations and written assessments. These assessments should include the skills, underpinning knowledge and personal attributes that are required to meet the industry standard of competence.

Educators and industry need to look at clever learning strategies, which generate evidence for assessment by doing logical workplace activities, which are defined by clustering two or three units of competency. For example, an agricultural training activity, the repair of a fence, includes a cluster of generic competencies such as the selection of appropriate tools required for the activity, maintenance, safety and quality issues, and competency for driving a vehicle. By integrating generic and technical skills training, the relevance of the generic skills to the job and thus the motivation to learn these generic skills are increased.

Improving the focus on personal attributes, values and attitudes

The findings of this study indicate that maintaining close relationships with employers and former students helps to ensure currency of knowledge and practice for teachers. These relationships are also particularly important for teachers as they help them to understand and to obtain first-hand experience of the personal attributes, values and attitudes that employers require in employees.

Large enterprises may prefer to deliver their own training in values, attitudes and personal attributes specific for their particular enterprise or industry. However, it will be important for teachers to be aware of the values, attitudes and personal attributes required by industry so that they can assist those students who are unemployed or intend to work in their own businesses, employees of small/medium-sized businesses without a history of in-house training, and adults who undertake training to change their career.

It is also apparent that enterprises base recruitment decisions primarily on personal attributes and generic skills. This underscores the importance of generic skills training, the preparation of résumés and job applications, the development of job-seeking skills and interviewing techniques for students and trainees in the context of the particular industry practices. Innovative solutions, such as contracts or partnerships with employment agencies, may assist institutions to solve these problems for students (see Douglas Mawson Institute of TAFE in appendix 1).

Simulating workplace contexts for students

For some adults, especially those who are unemployed, a pre-vocational or foundation course may be desirable or essential to prepare them for entry into the workforce. Providers delivering training for remote communities, distance education or VET-in-Schools programs have been keen to deliver Certificate I or II from the training packages using workplace simulation. Although in many cases this will improve student awareness of important issues, providers run the risk of providing generic skills training that is out of context and may not be relevant to students who are yet to experience a workplace. This is especially the case for occupational health and safety, and communication in the workplace.

While acquiring Certificate I or II may be desirable for secondary school students as an introduction to the industry, training managers in this study were quite adamant that the school environment was very different to the work environment. Thus learning 'communication in the workplace', when the trainee had to perform specific jobs in a workplace, was very different to learning it in the school classroom. These training managers also clearly identified the major difference between work experience and work placement. They were especially in favour of work placements and school-based traineeships because trainees were given formal responsibility for dealing with customers and working with colleagues. Time management skills were also

important in a work situation. Moreover training managers believed that students could only be assessed as competent when they had practised and demonstrated key competencies or generic skills on the job.

If generic skills training is to prepare students for the workplace, it is apparent that strategies for learning and assessment must include real work experiences, such as contracts with time-constraints and responsibilities for dealing with real customers (for example, students setting up their own profit-making business activity).

Improving workplace assessment

The emphasis on assessment in the workplace context not only recognises the importance of applying technical skills in context but also the importance of the generic skills. For example, meeting the requirements of the customer requires appropriate attitudes, such as courtesy and respect for individuals, as well as high-level communication skills and problem identification and problem-solving skills. Thus, holistic assessment of competencies should contain equal emphasis on technical and generic skills, and values and attitudes required to meet industry standards for the job.

Using appropriate evidence-gathering methods for assessment is challenging but these methods must be gender and culturally inclusive and take into account the language, literacy and numeracy skills of both the assessee and the assessor. Professional development of trainers and assessors is required in evidence-based assessment methods.

Innovative solutions and industry or community partnerships are required for institutions to solve the problem of workplace assessment for those undertaking training who are unemployed or wanting to change their career. These partnerships should also link students with employers and assist them in learning about job-seeking and interview skills in the context of the industry.

Increasing management commitment to training

Where all managers in an enterprise have a commitment to training and assessment, the organisation ensures it has a training or learning culture, which promotes lifelong learning. This commitment means that training and development are promoted as a part of normal workplace activities to improve workplace performance. This also promotes a focus on generic skills in recruitment and selection processes and further development of generic skills.

Improving resources for training delivery and assessment

In addition, the infrastructure for planning, delivery, assessment, monitoring and support of the training or learning of employees is vital to deliver the outcomes sought (for example, consistency of performance, superior performance or career pathways for staff). Each department or work group should have a qualified workplace trainer or trained mentor and all managers and supervisors should also be involved in training and assessment. The organisation should have specifically qualified workplace trainers or their supervisors may undertake such training and assessment. It is essential that the trainer or mentor has credibility and is experienced in the work routines to be able to provide the motivation and encouragement for colleagues to keep learning and improve their performance.

Increasing incentives for training

Where enterprises have a commitment to structured training, recruitment and retention of staff are improved. Aligning the job classification structure to the Australian Qualifications Framework provides incentive for employees to undertake further training for career progression. This ensures the correct placement of training with work requirements, as it is really important to have the training and practice take place at the appropriate time. Jobs should be described using the endorsed national competency standards including the generic skills required. In addition, articulation of VET qualifications with higher education courses provides further goals for employees and enhances the organisation with external ideas, mentors and networks.

Implications for VET practitioners

A number of implications for the vocational education and training system can be drawn from these findings.

Firstly, training package developers should understand the importance of generic skills in the identification and development of the competency standards. This includes industrial relations, personal attributes, values, attitudes and work ethics.

Secondly, there needs to be adequate professional development processes in place for ensuring that teachers and trainers are provided with training in appropriate methodologies for the delivery and assessment of generic skills. This is to ensure that they provide the variety of experiences and learning activities for students to acquire the conceptual, technical and generic skills required for jobs and for the transferability of these skills to new contexts.

Thirdly, research into the adequacy of the performance levels identified for the key competencies should be conducted.

Fourthly, an examination of the assessment guidelines should be conducted to ensure that they include direction for the assessment of personal attributes, values, attitudes and work ethics. It is also important for providers to identify methods for assessing the key competencies and generic skills which provide valid results.

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Appendix 1: Case studies

Accor Australia and New Zealand – hospitality

Background

Accor Australia and New Zealand were chosen for inclusion as a case study because of its implementation of the Hospitality training package. The company manages over 110 hotels and resorts, conference centres, large-scale catering services and cruise operations in Australia and New Zealand. Accor also has some 170 hotels in 60 other countries in the Asia-Pacific region, covering luxury and budget market sectors. Accor Asia-Pacific is part of the global Accor group. Hotel brands include Sofitel, Novotol, Mercure, All Seasons, Ibis, Formule 1 and Coralia. Cruise operations include Blue Line Cruises/Sydney Showboats in Pyrmont, Sydney. Other members of the group are Eurest Catering Company, Accor Vacation Club and Europcar.

Founded in France, the original Accor company established Académie Accor, which is a 'university of service' for Accor staff to achieve higher-level hospitality skills, including the ability to consistently anticipate and meet the needs of guests.

Accor mission

The Accor mission is to provide memorable, unique, value-for-money experiences, which surpass customer's diverse expectations.

Recruitment processes and the introduction of a national standards-based training system for all staff have been important in assisting Accor to achieve its stated mission.

Recuitment processes

The director of Human Resources Development for Australia and New Zealand has focussed on achieving consistency of skills throughout the 110 hotels so that staff can be transferred within the Accor group. In the recruitment process HR staff pay particular attention to the applicants' appearance, personality and attitude, as experience has shown that personality is often difficult to change.

Work ethics, punctuality, workplace safety and hygiene are considered essential attributes in this industry. People skills are an essential part of working in the industry, and so a well-groomed appearance, good communication skills, teamwork and customer courtesy are also required. For entry-level positions, the specific skills and knowledge for most jobs can be taught on the job. However, applicants are required to provide evidence of skills and knowledge when these are essential to a particular position (such as chef).

Training practices

In the past, Accor hotels sent staff to Académie Accor in France for training. This was expensive, as trainers needed to stay in France for at least a month. Although this training met the needs of Accor, it was not considered transferable for staff who moved to other employers. The Hospitality training package was seen to be beneficial in that it made training available to all Accor staff. The company set about gaining registered training organisation (RTO) status for the Australian version of Académie Accor. This is based at the All Seasons Premier Menzies Hotel in Sydney.

The training package encourages mature-aged workers to get recognition of current competencies (RCC) in order to obtain a qualification. RCC gives mature-aged employees the incentive to undergo further training. Implementation of the national training package by the company also allows workers to build on their qualifications as they move within the industry.

Consistency within the region

Tourism Training Australia has found from its research that customers want to be served consistently by an individual who empathises with them. To encourage employees to show warmth and care to customers Accor have implemented a system of employee rewards for consistent performance and level of contribution to the company.

To ensure consistency of performance throughout the Accor group in Australia and New Zealand, training requirements have been adapted to meet the learning outcomes of both countries. The skill standards from both countries have been aligned to ensure consistency if staff are transferred. In addition, Accor has used the industry standards to develop its own procedure manuals. The chairman of Accor is planning a conference of HR managers to discuss the possibility of implementing one standards-based system of training and qualifications for the Asia-Pacific region. Thus the Australia-New Zealand competency standards may soon be extended to the Asian countries.

Training package implementation

Infrastructure

The Académie Accor has now had registered training organisation (RTO) status for nearly two years. Its own staff have been trained to qualify as workplace trainers and assessors. The company is aiming to have a qualified trainer/assessor in each department at every hotel. So far there are five branches of the Australian Académie Accor.

Although employees need to have the aptitude and interest to undertake the trainer/assessor role, the HR director would like to have at least one supervisor with qualifications for this role in each department. This is possible because there are typically three supervisors for each department (such as a restaurant). Training for Certificate IV in Workplace Training and Assessment for supervisors is provided in six days of off-the-job training. Another three months of individual study or teamwork is required to complete the series of assignments and assessments.

For every job there is a competency profile, comprising units of competency from the training package and enterprise specific units. Staff are assessed against the competency profile for the job and training needs are identified from this process. The training package encourages the use of different learning strategies to suit the needs of the company and employee. Currently Accor have nine hybrid programs to cater for all levels of staff training.

Training and assessment processes

Académie Accor staff deliver and assess Certificate II, III and IV in Hospitality and Certificate IV in Workplace Training and Assessment for Accor staff. They also deliver Certificate IV in Hospitality for external students. A new Certificate II Traineeship for 12 months has been introduced involving 12 days off-the-job training and an on-the-job supervisor/trainer to look after the trainees. For example, a front-office job profile includes knowledge of room rates, cancellation policy, public safety, 'lost and found' procedures. Off-the-job training would include 12 units, especially customer service and occupational health and safety.

The Accor training support materials have been adapted to cover the performance criteria in the training package and enterprise specific competencies. The materials provide for self-paced learning using scenarios and questions. The trainees will self-assess first and, if they consider that they are competent, then they will sit down with their supervisors/assessors. Trainees have a competency record book, which lists the competencies they must achieve and records their performance. When a workplace assessor judges that a trainee is not yet competent, further practice or training will be recommended.

Training package qualifications are linked to the job classification structure. For example, frontline staff undertake Certificate II in Hospitality, shift leaders undertake Certificate III and supervisors undertake Certificate IV in Hospitality. Supervisors also have specific training in rostering, revenue and time management processes. The HR director has found that some staff show initial resistance to training and

assessment for qualifications. For example, housekeepers, who are generally mature-aged women, were especially resistant until the holistic approach to training and assessment was explained to them. This approach includes training delivered in the workplace and assessment by observation and asking questions.

Generally, there has been a high turnover of staff in the hospitality industry. The introduction of the training package qualifications and classification structure by Accor may see a decline in this trend. It may also attract qualified staff to return to the industry. There is a trend towards employing older workers in the industry.

Certificate IV in Hospitality Supervision is mainly conducted off-the-job using a combination of units, and includes 12 days in total spread over six to 12 months. Each supervisor has a competency record book and workshops are used for assessment.

Although the training package offers a Diploma and an Advanced Diploma of Hospitality (Management), Accor training is less structured for managers and specific programs are selected to meet their needs (for example, conflict resolution or finance). Department managers and duty manager also undertake self-paced programs taken from 'leadership of people' and 'revenue management' units of competency in the training package. Sales training programs have been drawn from units identified in accounting, marketing or operations streams. New supervisors and managers are allocated a 'buddy' or mentor to coach them in their new position.

Induction processes

Staff have a full day induction for orientation when they first come to an Accor property and three months orientation on the job. In the department a 'buddy' system is used to assist the qualified workplace trainer and supervisor with induction training. In the off-the-job induction two main units are covered. These are 'Follow workplace occupational health, safety, security and hygiene procedures' and 'Safe lifting' (manual handling). An induction manual has been prepared for all staff and covers these issues within the context of their duties.

Accor staff have written their own learning program to address equal employment opportunities (EEO) and industrial relations (IR) in the induction of staff. The new EEO legislation also requires companies to provide regular EEO updates for staff, in particular on harassment and victimisation.

Articulation with other tertiary education

As yet, there has been little articulation from Accor training courses into higher education courses. However, external courses, especially those which are not the company's core business, are used at management level. Managers are allocated $1500 annually for external courses for their personal growth. Accor managers generally use a provider in their particular location, for example TAFE, university or Australian Institute of Management (AIM). William Blue International School, which is recommended by the American Hotel and Motel Association, provides professional development training online via the internet or can send a lecturer for intensive training programs.

Delivering generic skills

The essential generic skills for workplace health, safety, security and hygiene, EEO and industrial relations are covered in induction training for all new staff. These skills are also reinforced on the job. Work ethics, punctuality, and people skills, such as a well-groomed appearance, good communication, teamwork and customer courtesy, are also considered essential attributes in this industry and are reinforced on the job. The core units covered include 'Work with colleagues and customers', 'Develop and update hospitality industry knowledge' and 'Follow workplace health, safety and security procedures'. Other general units include 'Follow workplace hygiene procedures', 'Communicate on the telephone', 'Process financial transactions', 'Access and retrieve computer data', 'Coach others in job skills', and 'Monitor workplace operations'.

The 'learning to learn' and lifelong learning skills are built into the culture of learning on the job. A 'buddy' is assigned to each new employee or trainee and there is a supervisor or senior staff member, who is a qualified trainer/assessor, in each department—the designated department trainer. The learning culture is reinforced with a qualified department trainer and selected off-the-job training.

The self-paced learning materials use scenarios and questions. In off-the-job training, role plays and communication games are used to practise, for example, communication skills. Case studies are also used to analyse examples and situations with questions, such as 'What if …?' or 'What did they do wrong?' or 'How would you fix it?'.

Mature-aged workers can use their experience in the learning situations and co-facilitate in the learning group. This adds to their excitement about the learning.

For cultural diversity training, use is made of the multicultural backgrounds of Accor staff. For example, staff with Asian or Indian background will talk about their own culture and use first-hand knowledge to explain how to communicate with people from their cultures.

An indigenous cultural awareness program has also been delivered to all department managers and colleagues as an introduction to the Aboriginal and Torres Strait Islander program in which Accor aims to provide 100 jobs.

Evaluating the training package

Advantages

The advantages of the Hospitality training package for Accor Australia and New Zealand are the ability to:

- depend on nationally consistent competency standards to skill or up-skill staff
- transfer similarly qualified staff within Accor's international company
- customise training to meet the needs of the enterprise and the different learning styles of individual staff members
- provide recognition of current competencies (RCC) for existing or experienced workers
- align job classifications with the Australian Qualification Framework (AQF) levels
- allow workers to move within the industry or return to the industry
- complement lifelong learning strategies for staff

Disadvantages

Respondents identified few disadvantages of the training package. It was clear that more information should be given on how to assess the key competencies. It was felt that not enough specific examples were provided. This limited the ability of the trainers in the company to understand exactly how to go about ensuring that the key competencies were achieved.

The trainers also felt that the training package was very general and that it needs more case studies and examples of applications. Full examples of assessment would also help in the assessment guidelines.

It was also felt that some essential topics are not covered, or not covered sufficiently, in the training package. These include:

- EEO and industrial relations
- manual handling (safe lifting techniques)
- appropriate language skills, for example, not using slang on the telephone
- indigenous cultural awareness
- armed hold-up procedures

In addition, two other areas were mentioned as not being adequately covered by the national competency standards. These were:

- principles of revenue management, for example, yield management
- organisation of banquets and events such as conferences ('Event management' has been prepared for the revised training package)

Key points

Accor's experience in implementing the national Hospitality training package highlights several key points. They believe these to be essential to its success within Accor Australia and New Zealand.

1 Accor strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that Accor has sought, especially consistent performance.

3 A qualified department trainer is an integral part of the infrastructure for the program, and all managers are involved with the training and assessment of staff.

4 Accor uses a competency profile, including units from the training package and enterprise specific units, to describe every job.

5 The Australian Qualification Framework (AQF) levels are linked to the job classification structure.

6 Assessment and training are promoted as part of normal workplace activity to reflect and improve workplace performances.

7 Accor is a learning organisation and supports lifelong learning as fundamental for all staff.

8 Accor's recruitment practice places emphasis on appearance, personality, and attitudes. Work ethic, workplace health, safety, security and hygiene, people skills, such as a well-groomed appearance, customer courtesy, teamwork, appropriate language skills, and EEO are all considered to be essential in this industry.

Aspect Computing Pty Ltd – South Australia

Background

Aspect Computing Pty Ltd (Aspect) was established in 1974 to provide business solutions in the merging information technology (IT) sector. It now delivers IT solutions to customers in Australia and across the world. Some, like the Coles-Myer Group, have been in partnership with Aspect for more than 16 years. Aspect's software is used by organisations in more than 65 countries. Aspect provides its customers with a complete system development, maintenance and support service. Its training courses cover the whole IT spectrum, ranging from mainframes to the desktop, from operating systems to programming languages and productivity tools.

Aspect Computing Pty Ltd – South Australia was chosen for inclusion as a case study because of its use of the Information Technology training package to reform the 'in-house' training for all its staff. Aspect-SA is the largest privately owned Australian IT services company in South Australia. It has been operational for the past 11 years and currently employs 180 staff. It offers business consulting, professional services, technical services, and education and training to a wide range of both public and private sector organisations. The Aspect Computing Education Centre is located on the same site in suburban Adelaide as its other services. This provides the venue for its off-the-job education and training. Aspect is licensed to deliver a large range of Vendor Technical Certification, for example Microsoft, Lotus, Oracle, Novell, and Cisco. They offer 150 technical courses for fee-for-service training to their customers including classroom, self-paced, online and customised training.

In the IT industry most employers want new staff to be experienced. This means that mobility in the industry is high and often results in employers being less willing to train staff. Aspect goes against the industry trend and has taken on trainees.

Aspect mission

Aspect Computing's mission is to:

- thrive and grow in the next decade
- continue to encourage employee excellence
- maintain its fine reputation as a business partner
- continue to be a leader in adapting technological advances into competitive business solutions for its customers
- provide its customers with the best value for money

Recruitment processes and the introduction of the national competency standards to describe staff positions in outcome-orientated terms and foster self-assessment, have assisted Aspect to achieved its stated mission.

Recruitment processes

Aspects's IT professional staff are recruited with university qualifications. Problem-solving, time management and people skills including business communication skills, teamwork, a well-groomed appearance, and a customer focus, are considered essential. Aspect also wants people who are self-directed and can self-assess.

Aspect has IT client support trainees—direct from Year 12 into Certificate IV in Information Technology (Client Support). The advertisement for trainees seeks applicants with skills for client contact, problem-solving and teamwork. This seems to attract sufficient female applicants. They have also attracted and selected trainees from country areas. Aspect looks for young people who have had part-time jobs and thus some experience of a workplace.

The Business SA indigenous employment advocate was used to provide indigenous applicants for interview and two were selected this year. Aspect also supports the university graduate program and has a trainee from this program, who is physically disabled and uses a wheel chair. Hence training in 'cultural diversity' and 'disability awareness' have been provided for staff, particularly all managers, who will work with these new trainees.

Training practices

Aspect sees six factors as critical in its success. These include adaptation, professional reputation, innovation, integrated solutions, partnerships and dedicated, loyal IT practitioners. Regular customer satisfaction surveys are conducted and customers have been found to value staff competence and professionalism above all else.

Aspect invests heavily in the ongoing training and education of its staff. Skills upgrading is conducted on a continuing basis, providing employees with both professional and technical training. Aspect has a staff development policy and a commitment to providing timely and relevant training.

Aspect has a workplace culture of learning and a focus on training to develop the whole person. Training plans were always used for individual staff members but training delivery for technical competencies almost exclusively relied on vendor training with its emphasis on examinations for testing knowledge. In the year 2000, the manager of human resources (HR) and educational services, successfully applied for *Framing the future* project funding to extend the use of the IT training package from the traineeship for Year 12 school leavers joining the company to reform the 'in-house' training for all staff.

Training package implementation

Infrastructure

Drawn from all the various business units at Aspect, ten employees initially participated in the *Framing the future* project to extend the use of the IT training package to 'in-house' training for all staff. For example, participants:

- developed or enhanced their understanding of work-based learning methodology and competency-based training
- designed more varied teaching/training and learning approaches for technical competencies (that is, not rely exclusively on instructor-led courses)
- developed strategies for managing training or learning on the job more effectively
- identified strategies for incorporating key learning requirements and issues from client sites into company programs, to foster a more active culture of 'knowledge transfer' between senior staff and the learning needs of new employees

The project set out to reform the way the in-house training programs dealt with the training and career planning needs of business analysts, data analysts, project managers, programrs, solution developers, systems architects, configuration managers and document controllers. There was a special emphasis on the teaching of project management skills.

The principal outcome for the company was the development of a training strategy for employees with better links between the 'real' learning that happens on projects and the instruction materials developed. The project identified how the Information Technology training package ICA99 could be customised to meet the demands of Aspect. Vendor certification has been mapped with the IT training package and both results can be recorded.

The development of work-based learning and assessment methodologies focussed on gathering valid and reliable data to substantiate competence and give feedback to employees on areas for development. Training and learning resources were prepared such as session and resource plans, activity guides and assessment tools.

Additional outcomes included recognising the skills acquired on the job by employees. Recognising the existing competencies and developing career paths and training plans for these staff was a priority.

Since information technology professionals work in teams, which are constantly re-configured, the staff positions in Aspect have been described by mapping the competencies from the training package to their roles. This means that the positions are described in outcome orientated terms or in the same language in which customers would seek to hire the skills. For example, headed by a one sentence *general description*, of, say, a database administrator (DBA), the *role* includes the main tasks. That is, a database administrator's role includes:

- unloading and reloading data from the database
- performing backup, recovery and roll-forward of the database
- monitoring the size and performance of the database

- tuning the database
- applying security
- documenting the operational requirements of the database

Then the *competencies* are specified in two categories, those required for 'all staff' and 'DBA'; those specific to the particular position. These contain a list of unit codes and titles for the units of competency from the training package.

The Aspect staff are able to access the CD-ROM with the training package and look at the specific units of competency in detail. They then set out to gather the evidence to validate their competency or as is often the case their training plan will go about 'filling in the gaps'. The gaps may be in generic or 'soft' skills or in technical skills. For example, the new computer software does not require as much underpinning knowledge (early software required knowing how to write programs), and so good work habits may not have been developed.

All staff positions have been described using the competencies from the training package. Using these outcome orientated competencies has provided the manager of HR and Education Services with the same language as information technology (IT) professionals; for example, describing a learning project in similar terms to an IT project.

Since the training package includes project management, and now e-commerce, this human resources system and training initiative has been accepted by Aspect management. The Aspect Computing Business Management System provides easy access to all the information for staff. The company HR 'Staff services guide' is referenced as a controlled document in the Aspect Computing Quality Management System.

Most Aspect staff are already university qualified and so do not need the VET qualification. They can show different behaviour by the evidence in their portfolio. Aspect has limited registered training organisation (RTO) status, which allows them to conduct training only. They have a partnership with Douglas Mawson Institute of TAFE, whose IT workplace assessors conduct assessment in the workplace for Aspect's trainees and customers.

Training and assessment processes

Aspect always had training plans for staff but often people did not have the skills to describe the skills which they required. The national competency standards help with the description of the skills and foster self-assessment. This allows the educationist to find those skill areas, which need to be targetted for staff development.

The training package encourages flexibility in using different learning strategies. This means that staff training plans are now more descriptive and more outcome orientated. Training is no longer just about attending a course. It now includes action learning through mentoring, self-directed learning, using the software library, attending seminars and focus groups or reading print material.

Staff training is action learning and self-paced but it has timelines, which are written into each training plan. For example, a software developer 'may be asked to get additional skills for technical writing'. The training exercise may include technical writing for a real job for a client with the assistance of a qualified mentor. The mentor, who signs off on the task, critiques it. The risk management is that if it were not done properly then the mentor would have to do it for the client.

In the Adelaide office, about 70 of these staff have individual training plans with learning goals. Using the principles of recognition of current competencies (RCC) Aspect emphasises evidence-based assessment, which includes feedback from mentor and clients. They want their staff to think about the outcomes, and hence outcome-orientated training. The staff can show changes in behaviour by the evidence in their portfolio.

The units of competency from the training package are used by the staff member, who gathers the evidence to show they are competent. Competent performance is signed off by a qualified mentor or by the qualified workplace trainer/assessor. This particular skill competence is then added to their skill register and the individual's curriculum vitae (CV) is updated by Staff Services staff.

This structured, self-paced learning, especially using a mentor, encourages 'learning by doing' and is still activity-based learning. Previously 'learning by doing' in IT may sometimes have been inappropriate learning. This self-paced strategy is also useful when course dates do not suit the needs of a company or staff member.

Aspect wants people who are self-directed and can self-assess. The training and development process is additional to the staff performance review. When reviewed the staff member is asked 'What have you done to help your career development and learning?'. Performance review and discussion on career development may provide direction for future training plans.

The staff from Human Resources and Educational Services, called Staff Services, drive the training process and they emphasise that the training plan is just the beginning. Before they meet with Staff Services, the employees need to check out the role and competencies for a desired position on their Business Management System and the Training Package CD-ROM. Staff Services will check with the relevant manager for their priorities for that staff member's training plan—it may be 'public speaking' rather than CISCO vendor training.

The focus on learning outcomes also allows the training plan to assist with performance problems. Tracking the progress of staff against their training plan is done by Staff Services asking the person how they are going and negotiating adjustments to timelines if they have been too ambitious.

Aspect delivers Certificate IV in Information Technology to clients on the job. The Aspect Education Centre computer network is separate from the main company network, which would also include Sydney and Melbourne offices. Hence the trainees and fee-for-service students can have practical experience on the second network (lowest risk), especially on Friday night when they have until Monday morning to get it working again. Aspect takes Douglas Mawson Institute of TAFE (DMIT) student work placements, but spaces are limited especially for network students. Senior IT staff at Aspect must have a balance in their workload without too much teaching.

Aspect has an alliance with DMIT and trainees are enrolled there but Aspect staff deliver the Certificate IV in Information Technology training entirely on the job (generally one year). DMIT workplace assessors conduct the assessment. However, skills development is also conducted off-the-job in the Education Centre using a guest speaker from a technical area of the company or using scenarios. For example, the trainees are given a scenario of client's needs and have to prepare a report and presentation before a panel drawn from Aspect technical staff. The trainees are linked to business units for their on-the-job training and are rotated through different teams. Trainees have a work schedule and go out to work at Aspect's customers' workplaces, such as Helpdesk at Balfours or Adelaide Central Mission. These placements are chosen to re-inforce and practise skills learnt off the job.

Induction processes

Induction training, which lasts for three weeks for all new staff and trainees, includes training for Certificate II in Information Technology. That is, it covers occupation health and safety, workplace communication, teamwork, and in addition professional behaviour, personal presentation and grooming, and public speaking. Certificate IV in Information Technology also includes Certificate II and other topics.

Articulation with other tertiary education

Aspect's IT professional staff already have university qualifications but the outcome-orientated competencies from the training package and evidence-based assessment approach are used to aid self-directed learning and self-assessment for further personal and skill development.

Recent Aspect trainees are enrolled through Douglas Mawson Institute of TAFE (DMI) while training is delivered by Aspect on the job. While articulation to higher education from the VET qualifications may not have been considered by Aspect yet, DMIT has a partnership with Ballarat University for the IT Diploma.

However, involving a member of the IT teaching faculty from Douglas Mawson Institute of TAFE (DMI) on the *Framing the future* project team at Aspect enhanced the relationship with DMI. There have been opportunities for staff of the DMI IT faculty to participate in industry release by joining Aspect in software development projects.

Delivering generic skills

The 'all staff' competencies in Aspect staff position descriptions include generic competencies, for example, project management, working in teams, working with diversity, and creativity. Team leader senior competencies are still fairly technical but include working with clients, and teamwork.

Aspect support the integration of the generic competencies with the technical units of competency so that learning and assessment are holistic. For example, the activity may be to work on a technical problem within a culturally diverse team and prepare a written outcome for the client. This combines competencies such as communication with colleagues and customers, working with cultural diversity, working in teams, problem-solving, delegation of tasks, planning and organising, project and time management, research skills and technical or report writing as well as technical knowledge.

The training plans of Aspect staff feature additional 'soft skills'. For example, 'mentoring' was not mapped from the training package and needed a cluster of competencies and so a training session was developed by Aspect HR and Educational Services staff.

Aspect provide an Internal Education Program for professional staff development in an evening schedule. This program includes management and HR courses. For example, training in mentoring, public speaking, interviewing, train the trainer, conducting performance reviews, equal employment opportunity (EEO) and the workplace, cultural diversity and disability awareness, professional behaviour, service excellence, team building, Myer Briggs testing, and occupational health and safety courses, especially safe lifting, are covered in these staff development courses. There are also focus groups where developers, project managers and business analysts meet once a month.

For some trainees, other generic skills may also need to be addressed. For example, those trainees, who previously lived in country towns, may need to be taught to find their way around the city when they first arrive in Adelaide.

Evaluating the training package

Advantages

The advantages of the Information Technology training package for Aspect Computing Pty Ltd – South Australia are the ability to:

- customise training to meet the needs of the enterprise and individual staff
- develop better links between the 'real' learning that happens on projects and instructional or learning support materials and assessment tools
- provide the manager of HR and Education Services with the same language as IT professionals (for example, describing a learning project in similar terms to an IT project)
- encourage flexibility in using different learning strategies. These include activity-based learning through mentoring, self-directed learning, attending seminars and focus groups, which foster 'knowledge transfer' between senior staff and the learning needs of new employees
- use national competency standards to describe staff positions in outcome-orientated terms or the language in which customers seek to hire skills
- develop more descriptive, outcome-orientated training plans for staff
- provide recognition of the existing competencies of staff and the skills acquired on the job
- use national competency standards to foster self-assessment. Staff are encouraged to gather the evidence to validate their competency and 'fill in the gaps' (the gaps may be generic or 'soft skills' or technical skills)
- complement lifelong learning strategies for staff

Disadvantages

Some staff may have preferred to engage in instruction led training to gain more IT certificates. However, Aspect believe in developing the whole person and the holistic approach to work-based learning meets their needs.

Key points

Aspect's experience in implementing the national Information Technology training package highlights several key points. They believe these are essential to its success within Aspect Computing Pty Ltd – South Australia.

1 Aspect strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 Aspect uses competencies from the training package, and enterprise specific units, to describe the roles of all staff positions.

3 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that Aspect has sought in reforming in-house training.

4 Trained workplace mentors are an integral part of the infrastructure for the program. All managers are involved with the training and assessment of staff.

5 Training and assessment are promoted as part of normal workplace activity to reflect and improve workplace performances.

6 Aspect is a learning organisation and supports lifelong learning as fundamental for all staff.

7 Aspect's recruitment process places emphasis on client contact, problem-solving and teamwork competencies.

Australian Agriculture Company – beef cattle production

Background

The Australian Agriculture Company (AACo) was chosen for inclusion as a case study for its implementation of the Agriculture training package (Beef Cattle Production) and its commitment to a training system for all staff. AACo is one of Australia's largest beef cattle producers, with approximately 380 000 head of cattle on 18 stations in the Northern Territory and Queensland. The company's principal activities are the breeding, fattening and marketing of commercial beef cattle, the breeding of stud cattle and the production of dryland and irrigated crops. It also operates a 17 500-head feedlot on Goonoo Station in Central Queensland. Production is export-focussed with the majority going as processed meat to Japan, USA, Korea and SE-Asia, a fifth as live cattle sales for Asia and the Middle East and a quarter for Australian consumption. The company head office is in Sydney, and its operations are managed from Brisbane with regional management located on each station.

AACo customers, both domestic and international, are increasingly driven by the need for total food safety and consistent quality. AACo has implemented 'supply chain alliances' and branded products as part of its quality assurance system.

The company has a staff of 350, ranging from people who started with the company straight from school to university graduates. They are employed in seedstock, breeding, growing-out, backgrounding, and the feedlots. AACo also has specialist sections in genetics, nutrition, irrigation, agronomy, feedlots, research, marketing, quality assurance and computer technology.

AACo vision

AACo vision is to present customers consistently with safe, quality-assured beef efficiently produced by skilled staff in a sustainable Australian environment.

Recruitment processes and the introduction of a national standards-based training system for all staff have been important in assisting AACo to achieve its stated vision.

Recruitment processes

The co-ordinator of Training and Recruitment works from the largest cattle station, Brunette Downs, in the Northern Territory. Employment opportunities are now marketed with the offer of formal recognition of industry competencies, on- and off-the-job training programs and transfers to stations within the group.

Recruitment for station staff is ongoing as workers are often transient. For example, AACo recruits school leavers for work as apprentice stationhands, known as Jackaroos and Jillaroos. They generally stay with AACo for 12 months and then move back to their home property or the city. The main selection criteria for these jobs are appropriate personality, interest in the job/industry and a well-groomed appearance.

Training practices

Until the implementation of the Agriculture training package, recognition for the training the staff received on the job was generally non-existent. The only evidence the stockperson, head stockman or station manager could gather was a reference from a previous employer.

While developing innovative processes to enhance AACo's beef products and market it to the world, the company is especially vulnerable to negative media reports on tests for chemicals in food or disease in animals. To combat the effects of this vulnerability to external evaluations, AACo has developed a strong business imperative for implementing quality training. This means that it has embraced a consistent approach to training its widely dispersed staff which will help the company achieve quality assurance objectives and workplace health and safety.

Off-the-job training was made available to some staff, for example trainees from Austral Downs station were sent to the agricultural college in Katherine where Rural Skills programs were conducted[1]. In addition, the

Department of Primary Industry CattleCare training program was provided to ensure that each station has at all times a Cattlecare accredited chemicals specialist. Workplace health and safety are very important to AACo and in some instances St Johns Ambulance staff have trained AACo staff as first aid officers.

When AACo managers looked at the competencies in the Agriculture Certificate II (beef cattle production), they realised that with such a big cattle station they could be giving Jackaroos and Jillaroos a much broader exposure to the industry and broader skills.

Training package implementation

Infrastructure

AACo set about gaining status as a recognised training organisation (RTO) so that training on the job, and off the job conducted in the homestead, could be recognised. In addition, their own staff could be qualified as workplace trainers and assessors. It gained RTO status in 1997 and 30 AACo staff are now qualified as Certificate IV workplace trainers and assessors.

AACo has a training committee, which is responsible for company-wide training policy. A training and recruitment co-ordinator was appointed to implement the training policy. The co-ordinator lives on the largest station, Brunette Downs in the Northern Territory, where some off-the-job training is conducted in the homestead.

All managers reviewed the job descriptions in terms of the national competency standards in the training package. AACo started implementation of the national training system with the head stockmen, as they are the main trainers on the job. It is important that the station manager supports the training and nearly all of these have now had personal experience of the new system.

The co-ordinator set up the infrastructure and drives the process to have each head stockman qualify with the Certificate IV in Workplace Training and Assessment (WTA). The job description for head stockman now includes Certificate IV WTA, as well as Certificate III in Agriculture (Beef Cattle Production). AACo recognised the burden on head stockman and middle managers and so the company paid a bonus of $2000 to those staff who qualified as workplace trainers and assessors. Staff in these positions, who do not want to qualify as workplace trainers, will seek employment elsewhere.

The head stockman has a team of five to ten persons to muster the cattle in a paddock. They supervise, record, brand and track the cattle, recording any stock treatments during its lifetime. The written tasks are now computerised and so recording maybe to tick a box on a spreadsheet. However, head stockmen may soon have palmtop computers for the job.

Although it is now embraced by the whole company, the co-ordinator admits that many staff were negative initially to the training and assessment for qualifications. Once the staff understood the process, and they had been through the assessment, they realised that it was recognition for what they were already doing. In particular, most staff welcomed the recognition for current competencies (RCC) and assessment on the job by observation and questioning. They may have feared losing their jobs if they failed, but if they were assessed as not yet competent in a particular skill, they could try again. The flexibility of the training package also allows staff a choice of units in the non-core competencies.

Some head stockmen were initially apprehensive about conducting the assessment of trainees. However, in general, the person who trains the trainees does not conduct the assessment. A head stockman from another station will generally assess the trainees. This process also assists in ensuring the quality and consistency of the training and assessment. Staff are able to move between properties and continue their training.

A field officer (sometimes the station manager's wife) will visit the trainees and support their training. It requires a management system to keep the records of the training and the units of competency completed. The head stockman must send reports on training and assessment of trainees to the co-ordinator every month.

The job classification structure is linked to the training package qualifications. AACo has 120 stationhands at Certificate II level. The Jackaroos and Jillaroos are now enrolled in Certificate II in Agriculture (Beef Cattle Production) when they arrive on the station. They are trained in a broad range of skills, including mustering, handling, and slaughtering animals as well as fencing and water maintenance. Water maintenance is really important and the hardest area in which to recruit staff; that is, there are lots of employment opportunities.

The training package does not cover it well and more units are needed in water maintenance. Water maintenance needs mechanical skills for watering facilities.

At the beginning of each year AACo deliver the course for Certificate IV in Workplace Training and Assessment. The head stockmen must also have completed Certificate III in Agriculture (Beef Cattle Production), and may have done frontline management training. Managers may complete a Diploma in Business. External consultants are used for workplace health and safety training and for training for managing human resources. AACo workplace trainers/assessors are able to assess for other stations and so they are professional trainers/assessors.

In AACo aircraft and helicopter mustering are used and these are included in the training package. AACo has not delivered Certificate IV in Agriculture yet but has called for expressions of interest from agricultural colleges to help organise and formalise delivery of training for Certificate IV Agriculture (Beef Cattle Production) on the stations.

The feedlot staff and other company staff are currently extracting units of competency from the training package that apply to them and tailoring them to meet their needs.

Training package learning support materials may not be suitable for AACo's young staff to take on camp outs. AACo have developed their own training manuals and learning guides from other support materials. The self-paced learning materials use scenarios and questions. The head stockmen find the learning guides useful because they put things in a logical sequence, although they may not teach them in that order.

Training and assessment processes

The trainees are shown a skill, for example, horse shoeing, and then allowed to practise the skill. Trainees often let the trainer know when they think they are ready to be assessed. Trainees like the one-to-one training on the job and the 'hands-on' training so that they learn to fix the problem themselves. Their work may be structured, for example, so that they can take half a day to go to the workshop and set up the welding equipment to make something that is needed back at camp.

Some off-the-job training is conducted in the homestead. Trainees have the opportunity to undertake some training on other properties within the company. There are organised workshops and discussion groups for the trainees. The trainee knows that the head stockman has been through the training and so the trainer/assessor has credibility. The motivation of the head stockman encourages the stationhand to learn and complete the training. The training system gives the stationhand the incentive and keeps all staff involved. Time spent in the workplace is considered to be more productive and safer.

Induction processes

All new trainees and staff have a full week of induction at the homestead on the station. The emphasis is on professionalism, for example, personal work ethics—courtesy to all, and enthusiasm for the job, maintaining a high standard in personal presentation, grooming, and behaviour, and the need for self-development. It is emphasised that whenever they are in public they are judged as part of the AACo. Workplace health and safety, risks in the job, introduction to horsemanship, first aid and fencing are also covered.

Articulation with other tertiary education

AACo are seeking assistance from an agricultural college to assist them develop the Certificate IV in Agriculture (Beef Cattle Production) for delivery on the stations. Diploma and advanced diploma courses (AQF Level 5 and 6) at this stage need to be done externally.

Delivering generic skills

A well-groomed appearance, personal work ethics, courtesy to all, enthusiasm for the job, workplace health and safety and self-reliance are essential in this industry.

Six core units are required for all levels. These include:

- Communication
- Planning daily work
- Industry knowledge

- Health and safety for work
- Personal work ethics – courtesy, enthusiasm
- Personal skills – housekeeping duties

In addition trainees need to be able to cook nutritional meals as they need to look after themselves on camp outs.

The training of these core units are partly covered by off-the-job training at the homestead during the induction week. Then the learning guides provide practise activities or written tasks to be completed while on the job. An holistic approach, covering several competencies, is taken for assessment on the job by a qualified workplace assessor. There are organised workshops and discussion groups for the trainees.

Evaluating the training package

Advantages

The advantages of the Agriculture training package for AACo are the ability to:

- depend on nationally consistent competency standards to skill or up-skill staff
- reduce staff turnover of staff through structured training and multi-skilling of staff
- transfer similarly qualified staff within a large company spread over State and Territory borders
- customise training to meet the needs of the enterprise and individual staff
- encourage flexibility in using different learning strategies. These include self-paced learning and training delivered on the job or off the job in the workplace
- use national competency standards to describe staff positions
- align job classifications with the Australian Qualification Framework (AQF) levels
- provide recognition of current competencies (RCC) for existing or experienced workers
- provide incentive for gaining higher qualifications and complement lifelong learning strategies for staff
- allow workers to move within the industry as their training and qualifications are transferable

Disadvantages

The major disadvantages experienced by the company are related to increased record keeping, and insufficient coverage of topics in the training package. These topics include:

- water maintenance
- mechanical work (that is, in case of vehicle breakdown)

Key points

AACo's experience in implementing the national Agriculture training package highlights several key points. They believe these to be essential to its success within the Australian Agriculture Company.

1 AACo strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that AACo has sought, especially consistent performance.

3 A qualified head stockman trainer is an integral part of the infrastructure for the program, and all managers are involved with the training and assessment of staff.

4 AACo uses competencies, including units from the training package and some enterprise-specific units, to describe every job.

5 The Australian Qualification Framework (AQF) levels are linked to the job classification structure.

6 Assessment and training are promoted as part of normal workplace activity to reflect and improve actual workplace performances.

7 AACo is a learning organisation and supports lifelong learning as fundamental to all staff.

8 AACo's recruitment practice places emphasis on personality, attitudes and appearance. Personal work ethics, courtesy to all and enthusiasm for the job, workplace health and safety and self-reliance are essential.

Note

1 *Case studies: Implementing the agriculture training package*, Rural Training Council of Australia, 1999.

Australian Red Cross Blood Service

Background

The Australian Red Cross has been responsible for the collection, processing and distribution of blood and blood products to the Australian community since 1929. Fundamental to the delivery of this service is the voluntary, non-remunerated blood donor system that epitomises the humanitarian spirit of the International Red Cross and Red Crescent movement. In October 1996, the eight semi-autonomous services, which operated in each State and Territory, united to form a national service known as the Australian Red Cross Blood Service (ARCBS). The ARCBS was chosen for inclusion as a case study for the development and implementation of its national enterprise training package.

The ARCBS has its own board and is run as a non-profit organisation, which is driven by market demand for its highly specialised products. As well as the Australian Red Cross Society, it derives funding from the Commonwealth (40%) and State governments (60%).

ARCBS employs 2000 staff across a range of disciplines including medical, nursing, scientific, human resource management, marketing, finance, business development, quality and regulatory affairs, research and development, administration and transport. 2500 volunteers also support it. Blood services are widely dispersed throughout urban, rural and remote Australia. Blood is collected from both central and regional, static and mobile banks.

Like blood services around the world ARCBS faces numerous challenges, such as the emergence of new viruses and the escalating costs of more sophisticated technology to enhance the safety of the blood supply. In addition to blood collection and distribution, the ARCBS is involved in research and development to expand knowledge and to find solutions to improve health and quality of life. Many of these activities are conducted in collaboration with hospitals, universities, industry and other research institutions.

ARCBS provides technological support such as tissue typing for organ, tissue or bone marrow transplant. Many of the skills, knowledge and equipment required for skin banking are similar to those required for collecting, processing and storing blood. Thus, ARCBS experience and skills have helped bring about major benefits for burns victims.

ARCBS vision and mission

To share life's best gift by the provision of quality blood products, tissues and related services for the benefit of the community.

Recruitment processes, adoption of ARCBS values and implementing ARCBS national competency standards have assisted ARCBS to achieve its stated mission.

Training practices

All ARCBS people are guided by a core set of values—unity, service, creativity, fairness and accountability, which they developed and adopted. They also developed behaviours, which demonstrate commitment to these values (see attachment). These five values, and associated behaviours, were endorsed by the ARCBS national executive. Initiatives to support changes in behaviour were encouraged and progress monitored by staff. Regular staff surveys also provide feedback, which supports strategic and operational plans.

A nationally co-ordinated Workplace Learning System, the ARCBS national enterprise training package, was developed to meet both enterprise and Therapeutic Goods Administration (TGA) needs. The majority of training and assessment, because of the uniqueness of this service and the knowledge and skills required, is performed on the job.

The ARCBS operates in a highly regulated environment where government legislation and codes of practice must be complied with if ARCBS's licence is to be retained. The introduction of the Australian Code of Good Manufacturing Practice (cGMP), in July 1992, has resulted in many changes in the manufacturing processes and training in ARCBS. The ARCBS standard operating procedures (SOPs) and the training package were reviewed in light of recent changes to the cGMP.

The Therapeutic Goods Administration (TGA) under the auspices of cGMP, has promulgated standards relating to the safe manufacture, storage and transport of plasma. These standards cover donor selection, collection, testing, processing and transport of plasma by the ARCBS and are therefore applied generally to all blood and blood products.

A major component of the compliance under TGA is the requirement that all staff involved in the process of collecting, processing and testing blood and blood products, whether casual, volunteers or contract personnel, receive initial and ongoing training in good manufacturing practice. A regular TGA audit is conducted.

Workplace Learning System

The ARCBS Workplace Learning System operates in accordance with ARCBS values to deliver nationally focussed learning and development opportunities to ensure all staff have the skills, knowledge and attitude required to competently perform their role. The ARCBS Learning and Development Policy is expressed in terms of the five organisational values, as follows:

Unity

ARCBS workplace learning is supported directly by a national workplace learning team, with representatives from each of the five ARCBS business units.

Service

Accredited trainers and assessors will be responsible for the delivery of all workplace training and assessment. Learning opportunities will be timely, flexible, accessible and relevant, taking into account the learner's existing knowledge, skills and learning style. Records will be treated confidentially and access restricted to appropriate personnel.

Fairness

The ARCBS Workplace Learning System provides opportunities for the development of all employees. Assessments will be conducted in accordance with the assessment principles that have been built into the ARCBS assessment guidelines.

Creativity

A competency-based approach to employee learning and development provides a framework for the application of innovative and flexible learning strategies to suit the needs of both the individual and the organisation.

Accountability

A key feature of the learning system is the ARCBS Workplace Learning System national enterprise training package, with competency standards that provide a benchmark for assessment across all core service areas of the ARCBS. The learning system is underpinned by quality practices based on national training framework guidelines for private training providers and the ARCBS quality system.

Recruitment processes

In the recruitment and selection process, particularly for blood collection, ARCBS must identify people with appropriate attitudes and values for staff and volunteers.

ARCBS has the highest level of nursing staff in any blood service in the world. The nursing standard underpins the competency standards, as the Australian Nursing Federation (ANF) insisted that the minimum qualification was an enrolled or registered nurse for blood collection. ARCBS needs to constantly evaluate this approach as the work in blood collection is repetitive and under high regulation, while exceptional customer service is required to ensure the regular supply of voluntary blood donors.

Training package implementation

Infrastructure

ARCBS has hundreds of its own qualified workplace trainers and assessors. A qualified staff member, who is also vocationally competent in the particular ARCBS tasks, conducts workplace training and assessment or

recognition of current competence (RCC). This ensures high credibility of the Workplace Learning System by staff.

Workplace learning representatives are in each department and these staff have developed the material for national SOPs and assessment tools. The workplace learning representative gives advice and information to staff in the same way as workplace mentors or coaches in other organisations. In the smaller worksites the team leader may also be the workplace learning representative.

ARCBS managers are responsible for the training of their staff to maintain the standards of a safe work environment, the regulations and organisational values. Front line management initiative (FMI) training for middle managers, first time managers and team leaders, is currently being run in Victoria and recently commenced in Queensland.

Training and assessment processes

Competency standards describe the knowledge, skills and personal attributes needed in a specific area of work. They describe the work and also the standard of work that is expected. Competency standards are developed by combining units of competence into groups, which have meaning in terms of roles within the workplace.

Competency is a broad idea that includes all aspects of work, for example:

- skills to perform a particular task
- managing a number of different tasks/activities within a job
- responding to problems and non-routine events
- dealing with all aspects of the workplace including working with others

The specific areas for which national enterprise competency standards have been developed are:

- donor selection for blood and blood component collection
- collection of blood and blood components
- donor screening and product testing
- processing of blood and blood components
- inventory and distribution of blood, blood components and blood products

Training is delivered face to face—mostly one to one on the job or in small groups, through workshop activities, case studies and role play. Nurses in Donor Services would have an initial training module face to face.

Induction processes

For organisational induction a National Induction Toolkit has been prepared which is both a hard copy package and on CD-ROM. A face-to-face induction program is attended by most staff. The length of the induction program is usually two days but varies from State to State, from capital city centre to regional centre and between the business areas.

All staff are given essential and core information on:

- equal employment opportunity (EEO) policy, EEO for women, awareness of cultural diversity, and sexual harassment policy. Staff awareness of EEO is maintained through articles, including case studies, in the staff newsletter.
- occupational health and safety policy
- compliance with Good Manufacturing Practice Act
- ARCBS vision and mission
- ARCBS values
- site and team-specific induction
- Donor Service staff have additional initial training including technical skills and customer service

There is an employee orientation checklist, which the team leaders use to ensure that all employees new to the team receive the appropriate orientation. Each topic, which is applicable to the employee, must be completed and the team leader records and initials the date of completion.

General information includes:

- human resources—for example, security, confidentiality agreement, intellectual property agreement, Employee Assistance Program Information Systems including access to Blood Management System, local area network, e-mail and Internet authorisation
- quality system and good manufacturing practice
- Workplace Learning and Development System and individual portfolio
- Occupational Health and Safety Management System, including injury reporting, fire and safety, hazard reporting, first aid system, hepatitis B vaccination
- payroll—for example, salary and wage conditions, leave entitlements, timesheets, superannuation and employment declaration

Site-specific orientation is conducted through a tour of the workplace including amenities and equipment, introduction to relevant people, location of emergency exits, infection control/waste management, application of manual handling principles, and application of cGMP principles to work practices.

Articulation with other tertiary education

The ARCBS national enterprise training package was only recently endorsed. Training towards new qualifications has only just begun and so questions about articulation to higher education courses and opportunities for career change pathways outside of the ARCBS have still to be considered.

Many staff in ARCBS already have higher education qualifications but there may be some para-professional areas, for example in blood processing—the technical officer or laboratory technician, where articulation from the VET qualifications to higher education, may be desirable. While the enrolled nurse, who completes a Diploma in Blood Collection, may desire a change in career and seek credit transfer into a university nursing degree.

One of the aims for the ARCBS national enterprise training package is to provide more career path options outside of the ARCBS through the national recognition of competencies and multi-skilling. This area needs further discussion and negotiation.

Delivery of generic skills

During development of the standards a core generic set of standards applicable across these specific core areas was developed. These cover the following areas:

- occupational health and safety
- customer service
- quality assurance
- individual and teamwork
- facilities and equipment
- record keeping
- professional development

Generic skills are built into all competency standards. New technology and mathematical ideas are incorporated into the competency standards. A new Blood Management System will be implemented that will require computer literacy for all staff. ARCBS business units are progressively implementing this training using the National Toolkit for Basic Computing.

The introduction of the new computerised Blood Management Information System has required re-writing of standard operating procedures (SOPs). All assessment tools need to be mapped against the competency standards. OHS&W manual and quality manual are mapped against the competency standards.

Occupational health and safety

OHS&W manual has been clearly mapped against standards and an OHS&W toolkit prepared. For example, the manual handling unit includes a workshop on safe lifting. This is followed by a self-paced assignment to be completed in the workplace and delivered back in two months time to the workplace trainer. The assessment is conducted on the job from observation and using questions. The assignment can be done

individually or in a group on the job. However, it is often difficult to organise rosters to allow the nurses to work together on a group assignment (one-and-a-half hours per week).

Customer service

Customer service includes communication, and also requires behavioural change and so action learning is used. CS toolkit has been written, covering for example, verbal, non-verbal communication, body language, and dealing with difficult people. There are support materials with resources for action learning, and work books. Special customer service is required, for example, for a nurse in Donor Services interviewing and assessing the ability of a person to donate by testing for haemoglobin and blood volume. The donor is a volunteer and ARCBS wants to keep them returning. The nurse needs to make the donor feel valued.

Professional development

For example, for training in compliance with the Good Manufacturing Practice Act, the managers would have one day of staff development training on a case study where communication breakdown takes place. This would highlight the consequences of not recording or collecting information. In Victoria, frontline management training has been conducted in partnership with TAFE.

Computer literacy

Computer skills are essential skills and built into competency standards. A training needs analysis of staff was conducted and a Toolkit for Basic Computing has been produced. It is in hard copy so that all staff are able to work through it in their workplace. It starts with instructions for turning on a computer and was trialled with senior citizens with no knowledge of computers. The BC Toolkit starts by showing people how they already use computers and convinces them that they can already do it. It then takes them through the steps to use a PC by introducing them to the electronic version of the game of Solitaire to teach them the skills of the mouse including 'click and drag'.

Evaluating the training package

Advantages

The advantages of the ARCBS national enterprise training package for the Australian Red Cross Blood Service are the ability to:

- provide nationally consistent competency standards to skill or up-skill staff and volunteers, and for a consistent, valid and reliable approach to assessment
- minimise duplication ensuring a more flexible, nationally co-ordinated training and assessment system
- establish a learning environment culture
- customise training to meet the needs of the enterprise and the individuals
- provide transferability of competency attained
- lead to nationally recognised credentials that are flexible and portable across States and Territories
- provide incentives for ongoing skill formation of individual employees
- increase career opportunities and multi-skill workers to enable divergent career options within ARCBS
- capture knowledge and best practice from the State and Territory ARCBS services by developing more common channels for effective sharing
- provide more career path options outside the ARCBS through national recognition of competencies and multi-skilling

Disadvantages

Respondents identified few disadvantages of the training package. The consultative process used to develop the training package and the infrastructure of workplace learning managers overseeing its implementation provide for capture of knowledge for required revisions to the training package.

ARCBS needs to constantly evaluate the approach whereby the nursing standard underpins the competency standard. The work in blood collection is repetitive and under high regulation, while exceptional customer service is required to ensure the regular supply of voluntary blood donors.

Issues to be resolved

Human resource implications, for example, pay incentives or promotion based on obtaining the qualifications under the ARCBS national enterprise training package have not been resolved at this stage.

Key points

The ARCBS experience of implementing its national enterprise training package highlights several key points, which they believe are essential to its success.

1 ARCBS strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that ARCBS has sought.

3 A trained workplace learning representative in each department is an integral part of the infrastructure for the program, and all managers are responsible for the training of the staff in their team.

4 Assessment and training are promoted as part of normal workplace activity to reflect and improve workplace performances and ensure compliance with standard operating procedures and government regulations for safety and quality.

5 ARCBS is a learning organisation and supports career opportunities and lifelong learning for all staff.

6 The ARCBS recruitment processes place particular emphasis on appropriate attitudes and values.

Attachment: Australian Red Cross Blood Service values

The following is taken from *The story behind the values*, an Australian Red Cross Blood Service pamphlet.

The behaviours that underpin the values

Unity

- Promoting a strong team culture and workplace harmony
- Open and transparent decision making and two-way friendly communication
- Thinking nationally and considering national implications of State-based decisions
- Ability/willingness to support consensus decisions because of common goals and values
- Sharing resources and knowledge at the workplace between centres and regions

Service

- Talk, look, listen and learn
- Know and appreciate our customers and their needs
- Value and earn long-term relationships
- Strive to exceed expectations
- Make a difference in the community
- Provide a compassionate and professional service

Fairness

- A performance development system will apply to all staff
- Excellent performance will be rewarded by respect and recognition
- All regional staff will have equal access to participation in national projects and activities
- All patients will have equal access to blood and blood products
- Criteria for selection and promotion will not discriminate on the basis of age, gender, sexual preference, race or disability

Creativity

- Foster innovation and forward thinking
- Recruit diverse and curious people
- Redefine failure
- Enable and reward development of people with ideas and inventions
- Establish mutually beneficial and sustained links with external learning organisations
- Market organisational creativity
- Encourage fun and new ways of communicating ideas

Accountability

- Our expert services and work practices will exceed legal and regulatory requirements and provide products and services of the highest possible quality of our stakeholders
- We will uphold the confidentiality of our donors, our stakeholders and each other
- We will incorporate values into all systems, structures and processes
- We will take responsibility for our decisions and actions while being aware of our limitations
- We will respect the rights of our donors, recipients, suppliers and each other through open and honest communications

Baptist Community Services – aged-care work

Background

Baptist Community Services (BCS) – NSW and ACT provide an extensive range of services supporting people from the very young to the frail and aged in New South Wales (NSW) and the Australian Capital Territory (ACT). It is a non-profit organisation and an agency of the Baptist Union of NSW. BCS were chosen for inclusion as a case study because of its implementation of the Training Package for Community Services – Aged Care Work. BCS is a very large provider of homes for the aged, including nursing homes, hostels and self-care units, as well as community aged-care services.

BCS employs over 2000 staff and has myriad volunteers. Since the establishment of BCS, volunteers have played a significant role in the provision of services to the community. Volunteers are treated as staff in that they are effectively trained, supported and viewed as an integral part of the BCS workforce. Volunteers do not replace staff but act as a complement to them.

Baptist Community Services – NSW and ACT mission statement

Excellence in Christian care for individuals, families and the community.

BCS values include:

- Mutual respect and trust in all relationships
- Integrity and the highest ethical standards
- Stewardship of the resources and responsibilities in our care
- Communication that is open, consistent and two-way
- Continuous improvement in all that we do
- Performance with recognition for results
- Creativity, co-operation and commitment in our workplace

Our mission statement and values will be achieved through recognition of the inherent worth of each individual in God's sight, and as we strive in Christian love toward excellence in the services we provide.

Recruitment processes and the introduction of the Community Services training package with national industry-based competency standards have assisted BCS to achieve its stated mission and values.

Recruitment processes

BCS staff and volunteers must support the ethos of the Christian organisation and have an awareness of people with special needs. Most applicants will have had some volunteer experience and be caring people, who want to help others. Basic communication skills and teamwork are essential skills for all staff. For example, communication skills are as important for the maintenance worker for aged-care units as they are for the carers.

BCS staff use the interview to look at the person's understanding of communication. This includes the practical implications, for example, understanding body language, having respect for individuals and working as a team. In other words, values and attitudes are equally important, if not more important, than the knowledge and skills required for the position.

Carers are called assistants in nursing (AINs) in high care facilities, such as nursing homes, or personal care assistants (PCAs) in the hostels. BCS recruitment now seeks workers with Certificate III in Community Services – Aged Care Work. However, in some geographical locations it is not possible to find such qualified people. Thus, employment agencies may recommend mature applicants with experience but without this qualification. In some locations, a high percentage of BCS staff have English as a second language and many require literacy support.

BCS provides quality training and attainment of national qualifications to assist recruitment and retention of staff. University students (over 20 years old), especially nursing students, are employed as casual staff. The university students are encouraged to attend the staff training workshops and can also be assessed for competencies in the Certificate III in Community Services – Aged Care Work.

At present, work in this industry is generally part-time work and this makes it more difficult to attract young people. BCS has senior secondary students working as volunteers after school. VET-in-Schools programs could assist in future recruitment, but students are deterred from enrolling in community services, as it is not accepted for tertiary entrance ranking (TER). A generic first year at university, so that students could consider a career in aged care, would be useful.

Training practices

Recent legislation has introduced changes to aged care. For example, under the Aged Care Reform Act accreditation categories, higher payments are made available to aged-care institutions where residents are supported and assisted to remain as independent as possible. The majority of aged-care services are in community care; that is, in the persons' own home or self-care unit. The minority of aged-care services are in nursing homes and hostels, where residents require more assistance and dementia is prevalent.

Other changes include the new fire regulations, which require regular fire drills and evacuation of clients and staff, and the food and hygiene legislation, which requires written assessment of training for any staff involved in the handling of food. These changes in legislation, along with the aging of the population and workforce, have forced the industry to implement changes in training practices.

Implementing the training package

Infrastructure

The training and development manager leads the training program for BCS. The aim is to have all carers with Certificate III in Community Services – Aged Care Work. A nurse educator on each site drives the training process. The first step in introducing the program was for the nurse educators to complete Certificate IV in Workplace Training and Assessment in order to deliver the Certificate III in Community Services – Aged Care Work training to the carers.

BCS obtained status as a registered training organisation (RTO) in 1996 and commenced implementation of Certificate III in Community Services – Aged Care Work from the Community Services training package. Although the learning support materials produced for the training package have been found to be very useful, BCS has produced additional material to cover enterprise-specific topics.

In addition, some staff have been assessed against units of competencies under other training packages. For example, the Administration or Business Services training package has been used for office staff and the Horticulture training package has been used for the gardener. The frontline management initiative program has been added to the scope of training. This has produced benefits in the workplace as staff have found the contextualised learning and assessment to be very relevant to their work.

BCS provides training for all staff and volunteers. Staff undertaking the Certificate III are allowed a number of hours per week off the job for training (for example, four hours or one day). Training and assessment are considered part of the culture of continuous improvement at BCS. Annually all carers are assessed against the competencies even if they are not enrolled in the Certificate III in Community Services. Staff do not gain additional remuneration for completing the Certificate III in Community Services – Aged Care Work. However, the training provided is an incentive and assists in the recruitment and retention of staff.

Clients and relatives are also encouraged to attend staff training and information workshops. The graduation ceremonies for Certificate III in Community Services – Aged Care Work are held in the BCS facilities so that residents and clients can see the staff and volunteers receive their qualifications. The residents, when surveyed, indicated that they felt they had received better care since Certificate III training for staff had been introduced.

Training and assessment processes

BCS trainers note that the staff, including the mature-aged women, employees with non-English-speaking backgrounds, university students and volunteers, have different learning styles. They appreciate the fact that the training package encourages flexibility to use many different learning strategies.

BCS trainers frequently use a variety of learning strategies. These learning strategies include:

- One-to-one or small group training on the job.
- Workshop activities—local expertise, for example, BCS managers with appropriate education background, will be used to present information, for example, about strokes or dementia, or run demonstrations and activities.
- 'Buddy' systems—an 'official buddy', a colleague, plays the mentor role, especially during the orientation program. New staff or volunteers are considered to be super-numerary on commencement for several shifts, so that their 'buddy' can explain the history of residents and procedures, and answer any questions.
- Case conferences—carers discuss the Resident's Care Plan and talk about the resident's behaviour to analyse reasons for it. Then they apply knowledge to solve problems and work out applications specifically for the individual. The importance of communication between nurse or carer and client is emphasised here.
- Workbooks to use on the job—any difficulties and different strategies used with individual residents are recorded and questions can be asked by staff at shift hand-over.
- Clinical areas—pretend wards for training nurses in aged-care work.
- Experiential learning activities—for many people personal experience is the best teacher and BCS trainers have devised different experiential learning activities. For example one strategy involves carers assuming the role of a resident for a day and trainers assuming the role of carer. This is particularly beneficial for the mature-aged staff from non-English-speaking backgrounds because it is easier to understand empathy for clients, and the need for caring skills, through actual experience than it is to learn these skills in a lecture or from a book (see the example on page 104).
- Role plays—scenarios are enacted to emphasise and practise workplace situations.
- Self-directed learning using video and learning material.
- Activities program for clients—carers are encouraged to go to recreational activities, such as bingo and music, with their clients so that there are components of the day that the carer spends with each client on a one-to-one basis. However, insufficient staff and heavy workloads usually make this difficult to implement on a regular basis.

Community care workers also have a 'buddy' for several shifts as it is very different working with residents in their own home compared with those living in a hostel or aged-care unit. Fewer community care workers are doing the Certificate III in Community Services – Aged Care Work because of their daytime workload. However, many are keen to do the dementia unit as they are working with clients with mild dementia.

BCS staff are participating in the external aged care in home (EACH) pilot program in which a registered nurse works with clients in their own homes and this carer needs problem-solving skills. Carers often encounter problems in working in a client's own home which has not been specifically designed for nursing disabled clients. For example, government funding only provides for one carer to work with community clients, whereas two people are usually required for lifting clients in institutions.

Because carers need to see each person as an individual and recognise an individual's need effective communication with clients is fundamental. It is often more demanding for staff to show the client how to do it. They work in partnership with the client to allow the clients to do as much as possible for themselves.

At BCS there is a commitment to training so that all staff (and clients) are aware of the Certificate III in Community Services – Aged Care course. Training plans are put together for a group of staff, maybe carers or cleaners, caterers or administrators. Following training and assessment, comments are gathered from residents to measure the effectiveness of the training. This client opinion is also required for accreditation of nursing homes and aged care under the regulations. The trained staff and managers are also asked for a statement of the impact that the training has had.

A holistic approach is taken to assessment, which may cover up to eight competencies at the one time. For example, assessment techniques using observation by the assessor may include competencies required for showering a client, manual handling, communication, dressing and undressing.

The assessment is competency based so that if the staff member is assessed as not yet competent, then further one-to-one training or practice is suggested. A second round of comments from clients and staff is then sought.

The assessment process gathers many comments on the performance of the team, and the standard of their work. It also helps BCS meet objectives for continuous improvement.

There is a lot more to providing quality care than acquisition of competencies by individuals and working with other colleagues, or teamwork, is essential for the best outcome for the client. For example, two people are required for manual handling in a nursing home or aged-care hostel and so it is essential that these two colleagues work together.

BCS has progressed from focussing only on the competency standards and now staff need to demonstrate that they have acquired the appropriate attitudes, skills and knowledge in the workplace. That is, the person cannot be assessed as competent unless they are able to demonstrate a caring relationship with the client.

Induction processes

BCS has implemented a standardised orientation program. This program is significant for the promotion of the organisation's goals, mission statement and drive for continuous improvement. Each new person receives a copy of the *BCS employee and volunteer handbook*, which covers the corporate organisation, work ethics, working conditions and occupational health and safety. Their supervisor explains the expectations of their role in the facilities or program and administration details. The supervisor organises the induction program which comprises three specific stages dealing with:

- Job-specific checklists
- corporate orientation
- self-directed learning

The new employee or volunteer is introduced to all business units, including the training unit, and the technology used in the organisation.

Year 10, 11 and 12 students who work after school must also learn to work safely in the kitchen and serve meals. They have an initial two-hour workshop including food handling and safe practices.

Articulation with other tertiary education

BCS, in partnership with the University of Newcastle, has an Aged Care Research and Education Services (ACRES) Unit. This innovative specialist unit links all faculties in the Medical School with the BCS aged-care facilities. The linkage allows medical and nursing students to practise skills in the aged-care facilities and aged-care workers to extend their training through articulation to university courses. In particular, BCS staff articulate into Certificate IV in Community Services – Aged Care Work with University of Newcastle. ACRES also highlights the importance of aged care as a specialty in which to work and encourages clinical research within aged-care facilities.

In conjunction with BCS training and development, ACRES can tailor in-service programs to meet the needs of the BCS facilities. This may include delivering the courses to staff, who are mostly mature women and part-time workers or delivering programs to a group of eight to ten workers in a regional area.

BCS is one of seven organisations in the aged-care consortium conducting a Graduate Certificate in Aged Care Nursing. It is a program for new graduates and had 14 participants in 2001. It is predicted that 75% of the participants will be retained in the aged-care industry.

Some carers have been able to articulate into the 12-month enrolled nurse training course provided by TAFE. However, this arrangement is not ideal, especially as it requires 14 weeks full-time study and a variety of clinical placements, including one medical and one surgical placement.

In addition to the workplace training provided, BCS has a study scholarship program and currently has 53 staff on scholarships, for example, studying Diploma of Theology or Master of Business Management (MBA).

Under the fire regulations, the training buildings must be evacuated twice a year to provide staff with practice in building evacuations. Selected BCS staff have been trained to fire officer level 1 so that they can conduct some of the mock fire drills.

Delivering generic skills

In aged-care work the most important skills for aged-care staff are teamwork and communication skills. Carers must be able to relate to other people, especially their peers and clients, and so require excellent interpersonal skills. It is essential that carers understand the verbal and non-verbal communication of the client and use their knowledge and problem-solving skills to respond appropriately.

Training in generic and technical skills is integrated, particularly through a variety of learning strategies. These learning strategies include:

- one-to-one or small group training on the job
- workshop activities
- 'buddy' systems
- case conferences
- workbooks to use on the job
- self-directed learning using video and learning materials
- role plays
- experiential learning activities

In particular, the experiential learning activity can show staff that they can work differently and often these differences, although subtle, are very important to ensuring quality care. In one experiential learning activity used at BCS, participants assume the role of a nursing home resident for one day. The trainer assumes the role of the carer and attends and treats them as she has seen other real residents being treated (see example on page 104). When the training exercise is completed, the trainer conducts the de-briefing on a one-to-one basis and helps participants talk about their training experience, empathise with clients and identify the practices and habits they will need to change. This activity is voluntary, and initially participants chosen are enthusiastic workers, who will report that it is a really worthwhile exercise, to encourage more volunteers. Those staff, who do not participate for personal or cultural reasons, are influenced by the informal feedback (for example, staff discussion during morning tea break) and so also get a lot of value from the exercise. For other staff, such training may also be covered in role-play activities.

Pre-employment programs

BCS is negotiating for contracts to deliver training under the Work-for-the-Dole scheme. It would be a mini-package of the aged-care work program covering the generic units from the training package (for example, communication skills, workplace health and safety principles, including manual handling procedures). A six-month contract would be required to allow sufficient time for on-the-job training.

Evaluating the training package

Advantages

The advantages of the Community Services training package for Baptist Community Services are related to the ability of the institution to:

- depend on national consistent competency standards to skill or up-skill staff
- transfer similarly qualified staff within a large organisation like BCS
- provide structured training, which assists with recruitment and retention of staff
- customise training in the workplace to meet the needs of the enterprise and individual staff and volunteers
- assess competencies through a holistic approach, which is more relevant to the work context (for example, using observations and questioning)
- provide recognition of current competencies (RCC) for existing or experienced workers
- provide incentive for existing staff to continue learning and gain further qualifications
- establish a culture of continuous improvement
- allow workers to move within the industry or return to the industry as their training and qualifications are transferable
- align job classifications to qualification levels

Experiential learning activity

Staff volunteer to assume the role of a nursing home resident for a day and get paid to stay in bed. Only one or two staff can do this activity at any one time and they are told to wear trousers and bring their bathing costume. In case there is sensitivity because of cultural differences, the participant can call a halt to the activities at any time. Only the nurse educator and care manager will attend to the participant for the whole shift. The participants are told that they will be treated as the nurse educator has seen real clients being treated. They are placed in a single room from which the resident has been taken out for the day. For participants to experience the age-related changes with which real residents present, they are asked to wear glasses, which have one lens smeared with Vaseline and the other lens partially covered to simulate glaucoma and tunnel vision respectively. Both ears are clogged with cotton wool to reduce hearing ability. One leg and the dominant arm are put in a splint to simulate the loss of function following stroke. Oversized rubber gloves are put on hands to represent the loss of fine motor skills. Participants may experience any of the following:

- being left alone in a hard chair or hard bed without a bell
- having music, that they really do not like, playing
- having the breakfast tray placed out of reach
- having their face not cleaned the way they would normally expect
- sitting in the wheelchair while it is pulled backwards quickly
- having to ask for assistance to go to the toilet
- being left in the toilet with no buzzer to attract attention
- being taken to the shower wearing only a 'dignity gown'
- having skin patted dry after a shower
- having feet left wet and then being pushed down the corridor in the wheelchair
- having the driest food offered before being offered anything to drink.
- being talked over and called 'dearie' and 'gran'
- not being able to see to cut the food or where to put the sauce on the plate
- not being told what food is on the plate to eat or what is being fed
- having cleaners take the food tray away without asking if eating has finished

The trainer conducts the de-briefing on a one-to-one basis and questions participants about their specific experiences. The trainer also encourages the participant to talk about their experience, empathise with the client and determine what practices they will change as a result of their experience. To prompt participants to talk meaningfully about their good and bad experiences, the trainer will ask the following types of questions: How did you feel when you were not given a drink or left in the toilet for 20 minutes? How did you feel when you were pulled backwards in the wheelchair? What did you learn? What practices will change for you? How will you 'see' your residents from now on? The trainer can also target questions to address a particular performance issue, that is, if the participant's manager has informed her of such an issue. Participants are also reminded about the availability of free staff counselling and given the telephone number of the external counsellor. Once the debriefing is over the trainer writes up the debriefing records and later talks over the experiences with the participating staff member. The whole process is time consuming because the debriefing can take nearly as long as the original exercise. The experiential activity shows staff how they can work differently to ensure quality care.

Disadvantages

It is generally felt that the training package is still too focussed on content or facts when it is the relationship between facts and context, which is most important. As a result trainers are required to add the 'soft skills' and make the connections from facts to the context. For example, they may want to ask questions like: What does this fact mean in the context of aged care? How do you use this knowledge when working with an aged person?

Staff are also able to use the recognition for prior learning (RPL) arrangements to gain status in Certificate III units. However, the RPL kit that has been developed involves a lot of work in gathering evidence and many

written tasks. For example, it is very difficult to get statements from previous supervisors, if you have returned to work after a 10-year gap. In these cases recognition of current competencies (RCC) may be the better option.

Other disadvantages include:

- performance criteria for competencies are unevenly distributed across the three areas of attitude, skills and knowledge
- a behaviour management unit of competency is missing. It needs to be added to the training package in view of prevalence of dementia patients in nursing homes
- at present AQF Level 4 and 5 do not cater for all staff. There needs to be two options (nursing and carer) for Certificate IV and Diploma for Aged Care Work
- frontline management initiative program units could be added to Certificate IV and Diploma for Aged Care Work
- articulation from Aged Care Work Certificate into nursing should be looked at to assist with the shortage of registered nurses
- VET-in-Schools in community services should be accepted for tertiary entrance ranking to attract more young people to look at a career in aged care
- a generic first-year course at university could be used to encourage young people to work in the aged-care industry

Key points

The BCS experience in implementing the Training Package for Community Services – Aged Care Work highlights several key points, which they believe are essential to its success within Baptist Community Services in NSW and ACT.

1 BCS strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that BCS has sought, especially a culture of continuous improvement and staff retention.

3 A qualified nurse educator is regarded as an integral part of the infrastructure for the program, and all managers are involved with the training and assessment of staff.

4 BCS anticipates that it will use competencies, including units from the training package and enterprise specific units, to describe every job.

5 Assessment and training are promoted as part of normal workplace activity to reflect and improve workplace performances.

6 BCS considers itself to be a learning organisation and supports principles of continuous improvement and lifelong learning for all staff.

7 BCS recruitment practice places emphasis on caring for others, personal ethics, the application of communication skills and awareness of people with special needs.

Brisbane Institute of TAFE – Gateway to the Trades

Background

Brisbane Institute of TAFE (BIT) in Queensland has three main campuses located at Red Hill (Ithaca), Eagle Farm (Gateway) and Groveley and a satellite campus at Caboolture. Each campus has an identified key learning area focus: Gateway campus—Gateway to the Trades, Ithaca campus—Think IT Think Ithaca, and Grovely Campus (and Caboolture)—Growing Horticulture.

The Gateway campus was chosen as a case study because it is favoured by employers for delivering off-the-job training under the Metal and Engineering training package. Mostly this involves apprenticeship training, which includes Certificate III in Engineering in Mechanical Machining, Metal Fabrication–Heavy (Boilermaking), Metal Fabrication–Light (Sheet Metal), or Fitting and Machining.

Under the 'user choice' Australian government policy, employers of apprentices and trainees are able to choose their preferred registered training organisation (RTO) to arrange the training and assessment of the competencies in the agreed training program and qualification. Gateway has the biggest 'user choice' component in Queensland, comprising some $7.5 million of 'user choice' training.

Recruitment processes

The VET training business consultant, for example, from a new apprenticeship centre, signs an employer and apprentice into a training agreement. There may be a self-check assessment of the apprentice's literacy and numeracy skills but often the apprentices do not want employers to be made aware of their learning difficulties at this time. After notification of the establishment of the training agreement, the TAFE staff visit the workplace to decide whether it is suitable for the proposed course or stream. This sometimes requires a change in the contract of training to place the apprentice into a more appropriate course or stream for that workplace.

There is a diversity of backgrounds and abilities in the apprentices, especially as some have been selected on school results or experience and others are appointed without formal selection procedures (for example, an employer may give his nephew an apprenticeship).

Training practices

The Gateway campus is equipped with industry-specific trade technology to ensure that students are well equipped with trade skills to meet industry requirements. At present, courses for the following trades are available at the Gateway campus: Metal Trades (Boilermaking and Sheetmetal), Engineering (Fitting and Machining), Plumbing and Gasfitting, Electrical, Glass, Glazing and Aluminium, Boatbuilding, Locksmithing and Stonemasonry. In the next four years the following trades will be relocated from Ithaca to Gateway: Automotive, Furnishing, Renewable Energy, Shopfitting and Joinery Machining. Furnishing includes cabinetmaking, picture framing, musical instrument making, upholstery and soft furnishing. Renewable Energy includes solar, wind and micro-hydro power systems and water-pumping systems and energy-efficient building design.

Gateway has had very robust post-trade courses, such as the Advanced Diploma in Engineering, which enable tradespersons to update their skills. Courses, such as those for welding supervisors and welding inspectors, are also conducted in the evenings on week days and on Saturdays during the weekend.

Training package implementation

The engineering industry, through the Queensland Manufacturing, Engineering and Related Services Industry Training Advisory Board (MERS ITAB), particularly wanted flexible delivery for the Metal and Engineering training package. Gateway accommodates the needs of employers and apprentices by offering off-the-job delivery of units of competency on a day release (that is, one day a week training for six months basis), full block release (that is, six weeks continuous training) or split block release (a four week block followed by another two week block at a later date).

Infrastructure

At Gateway there is a Workplace Learning Centre (WLC), whose staff are responsible for the apprenticeship training accounts. The WLC staff are qualified trade teachers and qualified workplace trainers and assessors. It is considered essential that the staff, who visit apprentices in the workplace, are themselves experts in the particular trade. The WLC staff comprise full-time or part-time administrators depending on the number of clients. About 60 clients are considered necessary to cover the costs of a full-time administrator and required expenses, including the costs of a vehicle, mobile telephone and computer.

After notification of the establishment of the training agreement, the WLC staff visit the workplace to decide whether it is suitable for the proposed course or stream and to develop an agreed training plan for the apprentice. The off-the-job training in days or blocks for the first year is booked with the RTO at this time. Often the apprentice has to remind the employer to book them in for training in subsequent years. The institute website contains the information for all the times available for off-the-job units of competency.

The faculty had appointed a learning support (LS) teacher to provide apprentices with individual tutorial support and counselling. This had encouraged apprentices to complete their courses and reduced attrition rates. Some apprentices do not have the Mayer key competencies or have specific learning difficulties in terms of literacy, numeracy or learning skills. The LS teacher helped to determine a specific learning strategy to help each individual apprentice. In collaboration with the workplace learning lecturer, the LS teacher prepared an individual workplan for the apprentice.

In addition, part-time tutors provide support for lecturers in the classroom and assist apprentices with developing core competencies. They may also run tutorials, work with small groups or assist in workplace simulation sessions.

The Queensland legislation requires that the WLC staff make at least three visits to the workplace per year. Tutorials can also be conducted with the apprentice at the visit. If the apprentice has a need to have competencies signed off, for example, in order to get a pay rise at a particular time, then an additional visit will be made.

The apprentice keeps a record of achievements in a record book. Details of the completed units of competency are recorded and initialled by the assessor. The WLC staff also keep a tally sheet so that they have a record of the units of competency that have been completed and those that are still to be done. In addition, WLC staff also encourage apprentices to keep checking their training plans so that they too are aware of what needs to be done.

Where a specialist operator is required for computerised equipment, (for example a computer-operated cutter), the equipment vendor provides the relevant training. The WLC staff encourage the vendors to train to the national competency standards and the assessment is conducted in the workplace.

Professional development

Industry release

The teaching staff are released to industry for a minimum of one week per year. The activity of the industry release generally falls into one of three categories: observation, research or practical experience. Observation includes shadowing an employee in their normal work responsibilities or observing work activities. This activity is particularly used when institute teachers do not have the required licence, recent experience in the industry or where a particular risk is involved. Research involves lecturers undertaking project work in an organisation to gain greater understanding of a specific industrial environment. Practical experience involves the lecturer working as an employee of that organisation for the duration of the placement.

Teachers have to report back against the competencies, stream or qualification for a particular training package. In the 'Record of release to industry' report, the teaching staff must relate the experience they have gained to the competency elements and range of variables described in the training package. Details of their experiences with materials and equipment, new and emerging technology, attendance at workshops and meetings, observations of workplace supervisory practice, induction processes and communication are also recorded on their feedback report. Feedback might include information on industry contacts that may be useful in the future and occasions when improvements to TAFE training were presented to the staff of the organisation.

Ongoing professional development

The recent trend to use casual or part-time staff, the high average age of TAFE staff, and the recent use of centrally prepared module books also, emphasise the need for ongoing professional development. Concerns were also expressed about insufficient recruitment of new TAFE staff in recent years.

A recent staff professional development day had addressed the issue of assessment in the training package qualifications. TAFE staff need to interpret the training package, prepare their own learning materials and determine critical evidence to be used in assessment.

Existing staff had also updated their qualifications by completing Certificate IV in Workplace Assessment and Training, as required under the training package, although they were of the opinion that they were committed educators and not just skill trainers.

Training and assessment processes

Lecturers were concerned about processes for developing 'quality tradepersons' under the training package and competency-based assessment. At Gateway lecturers are able to identify above-average competency or excellent performance by an apprentice in off-the-job training and to indicate this performance in the apprentice's record book. The employer also records on-the-job training in the same book and so notes the lecturer's comments about the apprentice's performance. Close links with employers allow the lecturers to keep each employer informed about the progress of an apprentice. The lecturer may also telephone the employer to tell him that the apprentice is outstanding at a particular technical skill.

Lecturers indicated that their aim was for every apprentice to reach the standard equivalent to a 75% credit pass in the course. Lecturers supported the WorkSkills competition as a way of helping apprentices to strive for excellence and maintain their motivation to perform high quality work.

The flexibility of the training package has been welcomed by some employers who appreciate the ability of the apprentices acquiring skills from two different streams. However, there is tension between the rhetoric of increased flexibility in the training package and its practical application. The reality is that often the small business employer finds that he may not want to train for a Stage 3 apprentice fitter to learn Stage 1 welding.

In addition, the training package allows for flexibility in the time taken to complete apprenticeship training. However, institute staff noted that although employers are often pleased to have the unit of competency signed off as soon as it is acquired, they may forget that the apprentice may then be eligible for a pay rise. Some apprentices may work out that they can finish their training early. Their employer may be counting on the apprentice earning more money for the business in the later stages of the apprenticeship and as a result does not want to have them signed off before the nominal four years.

Similarly small business employers initially welcomed the option of training fully on the job but in practice have found that they do not have sufficient time to provide the training. Institute staff believed that there has also been a loss of the teaching and coaching skills associated with the traditional master tradesperson as a mentor for the apprentice. They felt this to be due to this generation of employers having learnt their trade in a combination of off-site and on-site training. Prior to this all apprentice training was delivered on the job by the master tradesperson.

Foundation and core units of competency

The new apprenticeship training under the training package comprises 96 points equivalent of 960 hours of training. This consists of 20 points for the compulsory foundation and core units, 40 points for the compulsory stream requirements and 36 points to suit the business situation of the employer and apprentice.

The Certificate III in Engineering (Mechanical – Fitting and Machining) apprentice training Stage 1, which is basically the first year of apprenticeship training, can be completed as day release (that is, one day a week training for six months), full block release (that is, six weeks continuous training) or split block release (a four week block followed by another two week block at a later date). For example, the full block release may consist of the units of competency as shown on page 109.

There are a total of 36 points or the equivalent of 360 hours of training for Stage 1 apprentice training.

For the Certificate III in Engineering (Metal Fabrication – Heavy or Boilermaker), the foundation units are integrated and take about one week to complete. These units involve the apprentice finding out about the specific worksite occupational health and safety (OHS&W) and quality assurance procedures.

Example of full block release units of competency

Code MEM	Unit of competency	Points
1.4F	Plan and undertake a routine task	0
2.5C11	Measure with graduated devices	2
2.7C10	Perform computations—basic	2
2.8C10	Perform computations	2
2.9C10	Perform computer operations	2
5.5A	Carry out mechanical cutting	2
9.1A	Draw and interpret a sketch	2
9.2A	Interpret technical drawings	4
18.1A	Use hand tools	2
18.2A	Use power tools/hand-held operation	2
7.5A	Perform general machining	8
12.6A	Mark off/out (general engineering	4
18.3A	Use tools for precision work	4

Induction processes

After enrolment, apprentices attend a course orientation morning. At this time, the learning support teacher administers an introductory test to assess the literacy and numeracy skills of each apprentice.

Gateway has been competitive in tendering for the State-funded Pre-apprenticeship or Pre-employment Engineering Trade course. This full-time course allows students to learn entry-level technical knowledge and practical skills of immediate use to an employer. Thus it increases their chances of securing an apprenticeship in an engineering trade. It also allows the student to gain information on the industry and industry experience as the 23-week course includes six weeks' industry placement. The competency standard units completed attract direct credit for any future apprentice training, which can result in a reduction of the usual apprenticeship training period. The pre-apprenticeship course comprises the foundation units and a minimum of 16 competency standard units as a pathway for one of the following occupational streams: Mechanical, Fabrication or Electrical/Electronics. It also includes workplace simulation, and an industry placement.

Gateway plans to cater for those clients new to work or wanting to change careers or rejoin the workforce through more pre-employment courses, especially in collaboration with VET-in-Schools, group training schemes or new apprenticeship centres.

Articulation with other tertiary education

There is opportunity to use the trade qualifications to enter engineering at university. Credit can be obtained for some subjects and, with additional night classes for mathematics, the third year apprentice can enter the engineering course at university.

Delivering generic skills

The foundation units include workplace communication, occupational health and safety, applying quality procedures and planning to undertake a routine task. In the opinion of the institute staff, there is resistance from employers to training apprentices in 'soft skills' if the units are separate or stand-alone units. The generic skills or key competencies such as communication, interpreting diagrams, problem-solving, reading quality assurance documentation, writing evidence and numeracy skills, including using formulae and algebra, are mostly integrated into technical skill units. The lecturers strongly support the inclusion of foundation and core units but believe that the emphasis on the Mayer key competencies is being reduced as technical units become more advanced under specific streams.

Institute staff concluded that generic skills, like mathematics, are skills for living which should be maintained throughout life (life skills). The core units cover these mathematics skills under 'Perform computations' unit of competency.

The core units only require low-level mathematics; however, some streams contain specific technical units, which require a higher level of mathematics. Lecturers have found it necessary to teach separately the additional mathematics skills required for these courses. Where only a few students need additional assistance in mathematics, support is provided by a tutor in the classroom. The learning support teacher also provides assistance with mathematics to apprentices in technical subjects. This, however, is available outside class hours.

Communication skills

Lecturers considered that the ability to read technical drawings (or 'interpret specifications' as in Core Band 2) was an essential communication skill for metal and engineering apprentices. The apprentice is required to provide written evidence, talk to lecturers and tutors in person and on the telephone and converse with colleagues and clients. Initially they will talk to their supervisor in the workplace before they will be expected to deal with clients.

Institute staff believed that the best methodology for teaching the communication skills was to combine the foundation and core units. They also noted that there were some difficulties in the application of these units of competence in the workplace. For example, communication is meant to be a two-way process and the apprentice needs to communicate in workplace meetings. However, the apprentice is often excluded from workplace meetings. Therefore the WLC staff need to work with the employers and supervisors to identify ways to include apprentices in workplace meetings. For example, an appropriate task may to ask the apprentice to report back to the meeting on the cost of safety glasses.

Institute staff believed that because employers had, in general, received their training and qualifications through off-the-job module-based training at TAFE, there may not be a culture of training in the workplace. Typically a small business employer may have the technical skills required for the occupation but his knowledge of the 'soft skills', or other core skills, may be limited and so cannot demonstrate these competencies in a workplace setting. His wife may be the business administrator and may have the required generic skills for communicating with customers and keeping financial records. However, what is required is a training culture where the emphasis is on all employees being involved in learning. Thus, it is very important that a third year apprentice assists with on-the-job training of a first year apprentice. In addition, the apprentices may have a training role by imparting new information, skills and practices learnt at TAFE to qualified tradespersons in the workplace.

Occupational health and safety (OHS&W)

'Apply principles of OHS&W in the work environment' is a foundation unit. The Gateway Flexible Learning Unit has developed a computer-based learning system for the delivery of this foundation unit. In addition, this unit is Internet-based and customised to the trade. It can also be delivered in the workplace and in the classroom. It is also used by other TAFE institutes. It has incorporated within it the Mayer key competencies, workplace communication and performing computer operations.

Institute staff reported that the apprentices enjoy this unit as they had worked out how to split the work among their group (usually a three-member team).

Learning support teacher—enhancing generic skills

The learning support (LS) teacher was able to adapt the teaching approach to the individual's learning style. The apprentices were willing to put in an extra two nights a week of their own time after their formal training on campus to access individual help. For example, mature-aged apprentices might be embarrassed in the classroom situation when they were introduced to, for example, algebra for the first time. The one-to-one tutorial allowed the individual's learning strategy to be identified by the LS teacher, who helped the apprentice gain confidence and knowledge that could be used in the classroom.

The LS teacher administered an introductory test to assess the literacy and numeracy skills of each apprentice. A workplace document (for example, a 'Memo on non-smoking policy in the workplace') was used for the reading and comprehension assessment. The numeracy test included mathematical processes relevant to engineering apprentices (for example, the use of formulae). The writing task required apprentices to write

about their study and long-term learning goals. The LS teacher emphasised lifelong learning and the opportunity to use trade qualifications to enter engineering at university.

The LS teacher also visited the workplaces to help adapt training to individual situations. For example, the LS teacher worked with those apprentices from a religious group who had been home-schooled, at home after work so that they would be able to fit into the off-the-job classroom situation (for example, teaching them how to talk to the trade lecturers using first names). In the workplace, the LS teacher assisted with mathematics training (for example, helping to prepare the apprentice for the electrical units). Employers often co-operated with the LS teacher by releasing a slow learner for additional tutorial help. However, in some cases apprentices did not want their employers to know they needed remedial help.

The institute staff strongly supported the learning support being given in the context of the specific course. They believed that learning support was not only to help individuals with basic literacy and numeracy, but also to acknowledge individual learning styles and to address specific learning or language difficulties. It was also required for boosting self-esteem and self-confidence and providing 'mothering' and counselling for those apprentices who may be at risk of not completing their apprenticeship. This support was especially important for those apprentices who could only get to the campus during block release. The LS teacher considered that these apprentices, and many others, would not be able to access a general adult literacy class, which, in any case, would be unlikely to address their individual contextual needs.

Generic skills in pre-apprenticeship training

The pre-apprentice or pre-employment course was delivered under the training package. It consisted of the compulsory core competency standards units (CSUs), four from the foundation units, four from Core Band 1 units and five generic units from the stream. This made up the total of 20 points (200 hours). In addition, selected stream-specific CSUs (12–15 points) were added from one of the following occupational fields: Mechanical, Fabrication or Electrical/Electronics in Metal and Engineering training package. There was an allocation of hours for performance and assessment in the simulated workplace and for vocational placement over six weeks. The total for the pre-apprentice course was 32 points and it was conducted over 23 weeks.

For the engineering pre-apprenticeship course, core CSUs were taken from the Metal and Engineering training package as shown below.

Foundation and Core Band 1 units

Foundation units

1 Undertake interactive workplace communication
2 Apply principles of OHS&W in work environment
3 Apply quality procedures
4 Plan to undertake a routine task—includes small practical task

Core Band 1

1 Measure with graduated devices
2 Perform computations – basic
3 Perform computations
4 Perform computer operations

Note: Core Band 1 units 'Operate in a work-based team environment', 'Organise and analyse information' and 'Apply quality systems' are partially included with foundation units. However, 'Assist in the provision of on-the-job training' is not considered appropriate for pre-apprentices (or Stage 1 or 2 apprentices).

Five compulsory units were taken from the stream-specific units. These generic units were:

- Carry out mechanical cutting (from Fabrication stream)
- Draw and interpret sketch (from Drawing, Drafting and Design stream)
- Interpret technical drawing (from Drawing, Drafting and Design stream
- Use hand tools (from Maintenance and Diagnostic stream)

- Use power tools/hand-held operations (from Maintenance and Diagnostic stream).

In addition to 'Undertake interactive workplace communication', parts of the generic competency units 'Operate in a work-based team environment', 'Organise and analyse information' and 'Write reports' were included. Other generic skills such as study skills or 'learning to learn', completing logbooks, understanding training agreements and other industrial relations issues were also covered.

The institute staff were of the opinion that industrial relations issues were not covered adequately in the training package so they used the learning materials from the old module on 'Communication and industrial relations (IR)'. They noted that students were especially interested in IR issues and earning money. The emphasis, however, was on improving reading and writing skills.

The course provided some industry knowledge and basic skills for collecting information, participating in and understanding the role of workplace committees and holding a discussion. Job-seeking skills, preparing a résumé and job-holding skills were also covered.

There were some students who appeared to be just doing the course as a requirement for qualifying for unemployment benefits. The LS teacher was able to improve the attitude and motivation of these students.

Evaluating the training package

Advantages

The advantages of the Metal and Engineering training package for TAFE staff at Gateway campus are the ability to:

- customise training to meet the needs of the employer and apprentice
- encourage flexibility in using different learning strategies. These include self-paced learning and training and assessment conducted on- and off-the-job
- allow apprentices to have practical training (now called 'workplace simulation') off the job so that they can learn by making any mistakes on the machinery at TAFE. (Mistakes in the workplace can be very expensive to employers.)
- allow apprentices to train on specialist machinery in the workplace and be assessed by the vendor on-the-job to national competency standards which are included in the training package qualification
- visit the workplaces so that workplace training managers are aware of practical difficulties apprentices can encounter and the diversity required in industry practice. This enables them to compensate, or adjust training and assessment strategies, to meet the needs of individual apprentices
- allow apprentices to share experiences in the workplace with lecturers and other apprentices at off-the-job training sessions. This increases variety of experience and ensures quality of training outcomes
- provide contextualised support to individual apprentices, who may be at risk of not completing their course, through the visits of workplace training managers and the learning support teacher at TAFE
- provide incentive for gaining higher qualifications and complement lifelong learning strategies in the trades

Disadvantages

The TAFE respondents identified the following disadvantages.

- Foundation units are not allocated any points (no hours or funding). This is being considered for change in the review of the training package.
- Core Band 1 units include two units, which are considered inappropriate or not practical for Stage 1 apprentices. These units are 'Assist in the provision of on-the-job training' and 'Perform computer operations'.
- A lot of the incidental learning can be missed unless the workplace supervisors are aware of apprentice needs and enrich their learning experience in the workplace.
- Competency-based assessment may not help produce the 'quality tradesperson'. This has led to the re-introduction of graded assessment of performance, for example 'Competent with Credit' and 'Competent with Distinction', as has been piloted in other industries.

- The competency benchmark for each trade is well informed from industry but there is a need for more detail and accuracy to be written down for each stream. For example, it was noted that the tolerances are missing from the standards, such as should it be plus or minus 1 mm or 0.01 mm.
- The standard of the workplaces varies and many apprentices may not get exposure on the job to the diversity in the trade or may be limited in practice by their work environment.
- All the diversity in the trade may not be covered. For example, in metal fabrication there were previously modules for making grates, plates and pipes. However, competence in only one of these tasks is required under the training package. Tradespersons are often itinerant workers and may in the future be asked to make pipes, although their training only covered making grates.
- Industrial relations problems may arise in the workplace as the new apprentice, once qualified, may be paid more than other workers. It was considered to be more equitable to sign off the apprentices and then offer additional further training options to all employees in the workplaces.
- Additional further training options may not be available to all employees. It was noted that since the introduction of the training package, enrolments for the post-trade courses, for example, the Advanced Diploma in Engineering, which are now fee-for-service, were much lower.

Key points

The Brisbane Institute of TAFE – Gateway campus (BIT) staff experience of implementing the Metal and Engineering training package highlights several key points, which they believe are essential to its success.

1 BIT staff support training and assessment in generic and technical skills being integrated at all levels. However, BIT takes a diverse range of clients from industry or for pre-employment courses and in some cases generic skills may need to be taught separately. This may involve a group or an individual but must still be in the context of the technical course (for example, higher-level mathematics).

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes of quality tradespersons that BIT has sought.

3 The development of a learning culture within the institute and the provision of professional development for all staff for delivering training, preparing learning support materials and assessment under the training package is fundamental to the success of the training program.

4 Communication with employers and supervisors is vital to develop a training culture in the workplace (for example, apprentices must be involved in workplace meetings and discussions).

5 A learning support teacher who can provide individual, contextualised assistance is essential for apprentices who may be at risk of not completing their courses. This counselling and tutoring role is particularly important for apprentices from small or medium business where workplace training support is limited.

Coles Supermarkets Australia Pty Ltd – South Australia

Background

Coles Supermarket Australia Pty Ltd (Coles) – South Australian branch was chosen as a case study because Coles adopted the national Retail training package in early1997 to not only meet its business needs but also provide nationally recognised qualifications to its employees.

Coles is the largest of the retail businesses within the Coles Myer Ltd group. Coles is a full service supermarket operating over 400 stores throughout Australia and employing more than 50 000 people. Coles' structure includes a national head office as well as State-based offices.

In an innovative departure from the industry trend of casualisation of the workforce Coles is encouraging permanency of employment. It has changed the profile of its staff over the last five years by almost doubling the proportion of permanent staff. In 2001 about 80% of all Coles staff are in permanent positions. One of the key reasons for this change was to improve the overall skills and knowledge of staff on the shop floor by attracting, developing and retaining staff with a high level of retail skill and knowledge. Another reason for increasing the proportion of permanent staff was that with high casual staff turnover Coles was wasting millions of dollars spent annually on training. The retention rate for job applicants is now around 87%.

Coles – South Australia has 34 supermarkets (29 in metropolitan Adelaide) and employs 3600 people. Where possible all new 'service assistants' are undertaking a Certificate II in Retail Operations course for one year. There are currently 240 part-time and full-time trainees doing Certificate II in Retail Operations. In addition, there are school-based traineeships for year 11 and 12 students, who work at the store after school hours.

Coles mission

We are innovative industry leaders, who provide customers with value, convenience and superior service.

Recruitment processes, permanency and training are the people-management approaches which Coles uses to support this mission.

Recruitment processes

All seven of the Mayer key competencies, customer service orientation and learning skills are essential for employees within the retail industry. The recruitment process at Coles emphasises generic skills and personal attributes. Coles Insitute – SA manager expects recruits to be able to:

- work effectively and look for continuous improvement of their own performance
- communicate effectively with others
- work with little supervision and self-check their work
- work flexible hours
- respond to the needs of people/business
- show initiative
- work in a team

The key attributes were:

- a positive approach to work and life
- a high motivation towards work

Coles has prepared a display panel with information on the retail industry and career advice for students. This panel includes a list of the qualities for success in the retail industry, as shown on page 115.

Once a request for a new staff member is received from individual store managers, it is passed to the external employment agency, Employment Plus, who is expected to conduct an initial screening interview and testing of applicants. The brief screening interview is used to evaluate the applicant's reason for wanting a retail job

and their suitability for working with the public. The Coles' Aptitude Test includes a 45-minute written test related to retail processes, including arithmetic, paying attention to detail, and following instructions in a logical way.

The recruitment co-ordinator understands that about 70% of applicants are initially screened as unsuitable. Employment Plus may supply three or four applicants per vacancy for interview by the Coles human resources (HR) staff at head office in Adelaide. Unsuccessful applicants are allowed to re-apply for employment and sit the Coles' Aptitude Test again after a three-month period. It is not unusual for applicants to pass the test the second time.

Qualities for success in the retail industry

- Energy and enthusiasm
- Ability to work as part of team
- Enjoy working in the retail industry
- Flexibility
- Commitment
- Willingness to learn
- High motivation
- Eye for detail

Behavioural test interview

Following the selection process conducted by the employment agency, Coles HR staff interview recommended applicants. A behavioural test interview is conducted in which applicants are asked to talk about specific examples of how they did things in the past. This style of interview is based on the 1970s research into motivation by former Harvard Professor of Psychology, David McClelland. It is based on the theory that past performance is the best indicator of future behaviour. It uses questions which probe specific past behaviours, such as 'tell me about a time when you confronted an unexpected problem, or tell me about an experience when you worked in a team'. The final stage of the selection process involves the store manager, who decides if the recommended applicant is suitable for the vacancy in the store.

Diversifying recruitment

In addition, Coles has diversified recruitment of new staff through special agencies to include under-represented groups. In particular, there are currently nine Aboriginal and Torres Strait Islander trainees and a number of disabled workers in South Australian stores. It should be noted that non-English-speaking background and women employees are well represented in Coles staff and management. The current South Australian manager is a woman.

Coles actively utilises the New Apprenticeship Access Program (NAAP) to commence new employees into retail traineeships. The Australian Retailers Association recruits applicants for the Coles retail traineeships, which includes a four-week pre-employment training program.

VET-in-schools and work placements

Coles in South Australia has approximately 500 school students under various contracts of training or work placement arrangements. Coles supports the use of work placements (e.g. previous TRAC model) for the delivery of training in the workplace. It is currently using work placements in conjunction with the 'Quality Links' program to promote VET-in-Schools and school-based traineeships. The difference between work experience and work placement is quite clear to the Coles Institute – SA manager, who believes that bringing school students in for a few hours a week, with no structured workplace learning or job role, will not provide effective training outcomes. As the workplace is a very different environment to school, he believes that trainees need to experience 'accountability' if they are to learn about work in a realistic manner.

Training practices

Up until 1996, Coles had fully outsourced traineeship training to TAFE and private providers. In 1996, Coles acquired their registration status as a registered training organisation (RTO) and commenced the delivery of retail traineeships in-house. In 1997, Coles commenced the implementation of the new Retail training package.[1]

Coles recognised that the competency standards were representative of current industry practice. The competency standards were able to contribute to more effective and relevant training and assessment. The currency of the competency standards contributed to Coles' competitive and strategic advantage and its reputation as an industry leader in training.

The implementation of the national retail training system was intended to effect a fundamental change to the way Coles organised training. It wanted to establish an entry-level career pathway to attract new employees to a career with Coles, to further develop a training culture within Coles, and to implement more effective training that is focussed on the workplace. Through Coles' unique partnership with a university, Deakin Australia, and the formation of the Coles Institute, Coles can provide industry-accredited training and education from entry-level traineeships right through to university degrees. Coles pays for all training from Certificate II in Retail Operations through to a Masters Degree in Business Administration (MBA) for its employees.

Training package implementation

Infrastructure

Operational support for the delivery of the national Retail training package occurs at three separate levels: national, State and store. The national body level provides overall direction, providing a strategic focus and framework, which can be adapted by State and regional requirements. A National Traineeship Management Committee is supported by the National Group of State Traineeship Co-ordinators.

Each State has a State traineeship co-ordinator reporting to the State Coles Institute manager. The traineeship co-ordinator's role includes developing delivery strategies, conducting training and assessment, providing internal administration of trainees, completing RTO reporting requirements and participating in VET networks.

A team of qualified retail workplace trainers and assessors provide training support to the State traineeship co-ordinator. Stores have nominated workplace coaches for their trainees. In the regional areas there are also in-store trainers who provide off-the-job training. Managers are actively involved in training and assessment including workplace coaching and evidence gathering for assessment.

Coles' status as a RTO has enabled it to employ its own trainers and assessors, providing a strong platform for which to further the role of training and assessment in the workplace. It is also registered to train workplace trainers and assessors. Coles – SA currently has eight staff qualified with Certificate IV in Workplace Training and Assessment.

Training and assessment processes

Coles' training is delivered via a combination of on- and off-the-job training according to the requirements of specific stores and regions. The Training Package Learner Guides, as well as Trainer Guides, are developed by the national office to meet the training outcomes for the units of competency in the training package. These guides are utilised as trainer resources and incorporated into the training delivery. Trainees are rotated through a minimum of two departments and have sufficient time to demonstrate the competencies required.

Each unit of competency is assessed in the workplace after completing training activities in the workplace and gathering evidence for assessment. A unit assessment sheet, or checklist of training and assessment activities, is taken back to the store from the off-the-job training session by the trainee. As each component on the unit assessment sheet is completed, it is signed off either directly by the assessor or by the relevant manager. The assessor will then discuss progress or competence achieved by the trainee with the manager.

In addition to the unit assessment, there is an integrated competency assessment (ICA) for each phase—for example, Certificate II Phase A: Developing good working habits – 5 units, Phase B: Protecting store against loss – 5 units, and Phase C: General food selling (all units of one of the elective streams). A registered assessor other than the trainee's trainer (where possible) conducts the ICA.

All new service assistants commence training in Certificate II in Retail Operations, and every three months are assessed and appraised. Other management staff and management trainees have a formal appraisal every year as part of the Coles Performance Management System, in which key behaviours are rated on a five-point scale. This consists of a self-appraisal and line manager appraisal, which is reviewed by the line manager once-removed prior to an appraisal interview with employee and line manager. The key behaviours include planning, leading, organising and reviewing.

With respect to developing behavioural competencies the most effective method is providing behavioural descriptions of superior performance coupled with the appropriate coaching on the job within a workplace culture of training and continuous self-improvement. At Coles there is respect for hard work and praise for superior performance with rewards for consistently effective or superior performance. For example, 'Employee of the month' and 'Trainee of the year' awards have been established to provide this recognition.

Customer satisfaction surveys are conducted every two years and information collected from this research is used to assist staff training. Other information is collected from exit interviews conducted with staff who are leaving the company. There is a 30% turnover of casual staff and 10% turnover of permanent staff.

Certificate II Retail trainees in metropolitan Adelaide attend the training facilities at the State office in Gepps Cross for one day a month to undertake training for a unit of competence (for example, 'Communication in the workplace'). The trainee will then return to the store and immediately put into practice what they have learnt or make observations to reinforce what was covered in their training. The training staff believe that the opportunity for trainees to implement what has been learnt on that day is very important.

The following week trainees will spend one day in another department to undertake activities related to this unit of competence and to gather evidence for assessment. The activity book will explain what the trainee needs to learn and the tasks that need to be completed while they are working in this department. The Coles Institute – SA manager reported that this holistic training is more like 'real life' where everything happens at once.

The trainee brings the unit assessment sheet, with all components signed off, to the next off-the-job training session, in general four weeks later. For some units of competence more than one day is required for off-the-job training, for example 'Checkout operations' and 'Merchandising' require two days each. An additional day of training on 'Food handling and hygiene' is required before working full-time with fresh foods.

The training facilities at the Coles' head office, include a simulated checkout training room with both models of electronic register systems that are found in the Coles stores. Self-paced training via headset and tape is available for the trainees to learn the latest cash register system.

Induction processes

Coles both recruits for and develops the key skills and attributes. Nearly all Coles' recruitment is for entry-level positions. All new Coles' employees or trainees must undertake one full day of induction at head office before going to a store. This training includes the Coles' culture (values and work ethic), behavioural expectations and responsibilities (e.g. honesty, punctuality, respect for customers and staff, non-discrimination), basic hygiene, occupational health and safety, especially fire escape drill, and 'Coles store structure' (e.g. supervision, training and career pathways). Trainees take an activity sheet to the store and must sign off on all the procedures for their own workplace, for example, fire escape drill and meeting place.

Career pathways

The 'Coles store structure' is aligned to the AQF structure and each level builds on the previous levels (see page 118). The key competencies underpin the units of competency in each certificate and so also build upon the lower levels. Hence there is a progression in performance of the key competencies with different expectations at the different levels.

Certificate III in Retail Operations is offered to some employees recommended by supervisors or managers to be trainee managers. Then they spend three years at that level in charge of an area.

When discussing the link between training courses and career development, the Coles Institute manager emphasised the correct placement of the training with work requirements, because he believes that it is really important to have the training and practice at the right stage.

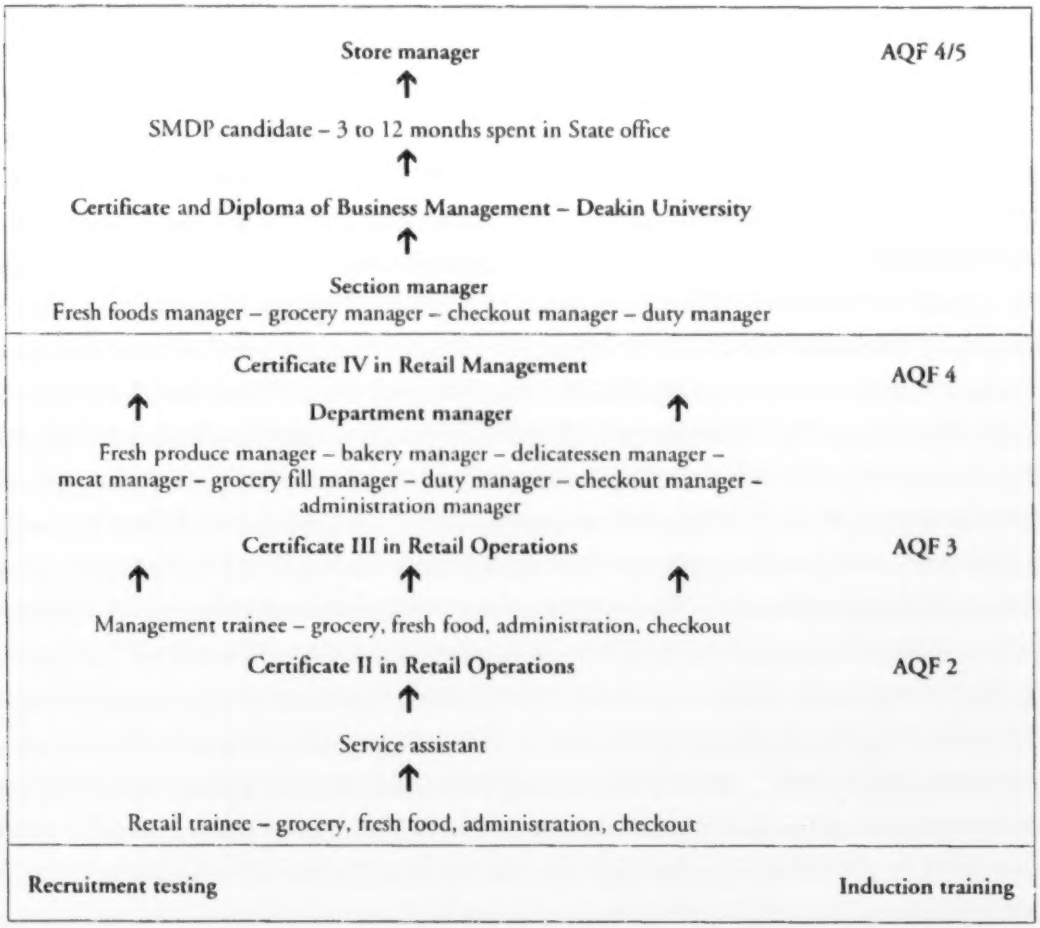
Certificate IV in Retail Management is undertaken by employees on first becoming a department manager in charge of staff. At that stage they need to know about performance management because they may have 30 staff and a $3–4 million turnover per year.

Career-orientated individuals are expected to have and maintain an interest in self-development throughout their careers. The Coles Institute facilitates the ongoing learning of staff as they progress from entry-level positions through to senior management roles. The Coles Institute has an integrated career and educational pathway that form part of the employees overall development.

Articulation with other tertiary education

Following completion of Certificate IV in Retail Management, the next stage in the career development for Coles' managers is to work as a section manager and do the Certificate and Diploma of Business Management course with Deakin University. Successful store manager candidates then spend three to 12 months working in head office, learning how the central system works, before going back to be a store manager. Staff can also complete a Graduate Certificate of Management or an MBA.

Coles store structure


Store manager
AQF 4/5
SMDP candidate – 3 to 12 months spent in State office
Certificate and Diploma of Business Management – Deakin University
Section manager
Fresh foods manager – grocery manager – checkout manager – duty manager
Certificate IV in Retail Management
AQF 4
Department manager
Fresh produce manager – bakery manager – delicatessen manager – meat manager – grocery fill manager – duty manager – checkout manager – administration manager
Certificate III in Retail Operations
AQF 3
Management trainee – grocery, fresh food, administration, checkout
Certificate II in Retail Operations
AQF 2
Service assistant
Retail trainee – grocery, fresh food, administration, checkout
Recruitment testing
Induction training

Delivery of generic skills

The Mayer key competencies are included in each unit of competency of the Retail training package with the appropriate level assigned. They have thus been integrated into the Coles Training Package Trainee Guides and Leaders' Guides for each unit of competency with activities and applications for assessment.

For example, 'Communication in the workplace', includes group and individual activities in off-the-job training. Listening skills and questioning techniques are illustrated in simple activities like Chinese whisper, riddles, celebrity heads, where you can ask questions of the group to guess whose name you have on your head. Role play is used, for example, in teaching telephone communication skills. The off-the-job training is then applied to activities on the job and assessed in the workplace. For example, the assessor can telephone the trainee in the workplace to check directly on telephone skills as well as observation by supervisors or workplace assessors.

Coles Institute – SA manager believes that generic skills are best taught and reinforced in the context of the specific unit of competency or training program. This holistic learning approach, integrating generic or 'soft' skills with technical or 'hard' skills, enables the learner to apply the generic skill in a range of situations within the retail environment. He believes that, if learners were to develop 'soft' skills in isolation to job skills, it would be harder for them to integrate these skills in the work environment.

Evaluating the training package

Advantages

The advantages of the national Retail training package for Coles are the ability to:

- improve recruitment and reduce staff turnover through structured training
- depend on nationally consistent competency standards to skill or up-skill staff
- transfer similarly qualified staff within a large organisation
- customise training to meet the needs of the enterprise and individual staff
- encourage flexibility in using different learning strategies to cater for different learning styles. Training can be delivered on the job in the workplace as well as off the job
- provide recognition of current competencies (RCC) for existing staff
- use national competency standards to describe staff positions
- align job classifications with the Australian Qualification Framework (AQF) levels. Thus career progression is dependent on successful completion of a certificate and a payrise is also attached
- provide incentive for gaining higher qualifications and complement lifelong learning strategies for staff
- involve all managers actively in the training and assessment of staff through their roles as workplace coaches and assisting staff to gather evidence of competence
- allow workers to move within the industry as their training and qualifications are transferable

Disadvantages

There are a large number of different agencies to deal with when engaging trainees, including VET-in-Schools co-ordinators, Job Network members, new apprenticeship centres, the Retail Association, and agencies for indigenous and disabled trainees. This involves a large allocation of time for the traineeship co-ordinator in dealing with the organisations and paperwork to sign on 500 trainees and to monitor and report on their progress.

Training information needs to be simpler and easier. The systems still tend to be State-based, for example, requirements for funding vary from State to State. This adds to the complexity for a large national company.

Key points

Coles' experience of implementing the national Retail training package highlights several key points. They believe these to be essential to its success within Coles Supermarkets Australia Pty Ltd:

1 Coles strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that Coles has sought, especially superior service to customers and career pathways for staff.

3 A trained workplace coach is an integral part of the infrastructure for the program, and all managers are involved with the training and assessment of staff.

4 Assessment and training are promoted as part of normal workplace activity to reflect and improve workplace performances.

5 Coles considers itself a learning organisation and complements the lifelong learning strategies for all staff.

6 The Australian Qualification Framework (AQF) levels are linked to the job classification structure.

7 Articulation into higher education courses provides goals for individual employees and enhances the organisation with external ideas, mentors and networks.

8 Coles' recruitment processes place emphasis on appropriate behavioural competencies. These include a positive approach to work and life, honesty, communicating effectively with others, respecting customers and staff, responding to the needs of people/business and showing initiative.

Note

[1] National Wholesale Retail & Personal Services Industry Training Council Ltd 1999, *Implementation of the National Retail Training System: Enterprise case studies*, National Wholesale Retail & Personal Services Industry Training Council Ltd, Burwood, NSW.

Douglas Mawson Institute of TAFE – aDMIT Solutions

Background

Douglas Mawson Institute of TAFE (DMIT) was chosen for inclusion as a case study because of its innovative business partnership for work placements and workplace simulation, or practice firm, for administration studies and information technology students. The ANTA Best Practice for Learning and Assessment in a Simulated Business Environment Project, a joint DMIT and Swinburne project, is using this practice firm as a model for developing online delivery for simulated businesses in a multi-media package.

Work placements

Work placements in Australia have been generally presented as a chance to practise and hone skills which have been learnt in related courses (Thomson 1996, p.4), learn new skills which may not be covered in these courses, and understand the real-world application of skills. Work placements at different points in a course will have a different purpose. For example, experience will focus on familiarisation with the industry in the early part of the course and will be more targetted towards finding employment later in the course. Work placements are expected to teach students about the world of work in general and industry-specific practical skills. Students also improve communication with others, learn to co-operate with work colleagues and learn about taking responsibility (Misko 1998).

There are number of benefits of work placements for all stakeholders. Smith and Harris (2000) summarise these as follows:

For students

- learning new skills and applying existing ones
- learning how to behave at work
- experiencing a variety of workplaces
- a chance to practise on more modern or different equipment
- learning from other students' experiences
- becoming empowered by success and wider knowledge
- increase in skills and in finding a job

For employers

- an extra pair of hands
- staff development opportunity for supervisors and mentors
- a chance to try out potential employees
- philanthropic and advertising function
- finding out about other available courses from the education provider
- an increase in the skills pool in local and national labour markets
- better understanding of the national VET system

For VET providers and teachers

- learning about the latest developments in workplaces
- networking
- chance to enrol employees or sell consultancy services
- potential for involving employers in other activities, for example, employer groups
- increased repertoire of workplace anecdotes for classroom teaching
- increased appreciation by students of classroom learning (Smith & Harris 2000, p.22–3)

The patchy coverage of work placements in the VET sector has been changing during the 1990s through various types of partnerships between employers and VET institutions (Symmonds et al. 1999). This situation is changing with the recent advent of training packages, which require workplace assessment of many units of competency and more flexibility to deliver training in the workplace and through a variety of learning strategies. This could create inequities for those who find it difficult to obtain work or work placements. Hager (1994) in discussing the merits of on-the-job and off-the-job assessment stressed that the

majority of TAFE students (60%) are not in employment related to their courses. Thus, flexible options in delivery and assessment must be developed to meet the needs of these clients, as well as other groups, such as the unemployed or persons with disabilities.

Workplace simulation: A practice firm

A practice firm is a simulated company but is run like a real business, with a local mentor company (sponsor) assisting by giving commercial support in the running of the business in line with the mentor company's policies and often their products. The practice firms operate in their own economic environment and undertake simulated commercial activities with other practice firms. They are co-ordinated by central offices in each participating country; for example, the Australian Network of Practice Firms (ANPF), is located at the Canberra Institute of Technology. The practice firm is recognised as providing work-based evidence for students who are unable to access real work placements. There are now more than 100 practice firms in Australia with about half associated with TAFE institutes and half in secondary schools (ANPF 2001).

McNickle (1999) investigated the effectiveness of the relationships of Australian business partners and their practice firms. The report highlighted a best practice model, including:

- teachers undertaking a return-to-industry program with their intended business partner
- students and teachers researching the industry as part of the induction program
- business partners being invited to assist in the initial set-up of practice firms
- regular feedback and updates on the progress of the practice firm to the business partner
- practice firms applying realistic and business-like principles and practices drawn from current business practice, as best they can. This would include virtual advertising budgets and bank accounts to assist students' book-keeping, problem-solving and risk taking skills
- practice firms being fully equipped with basic office equipment comparable to business partners so that exchange of information and procedures can be affected

Model of work-based assessment: A business partner

The options to meet the challenge of competence in the workplace context in the national Information Technology (IT) training packages were explored by the Douglas Mawson Institute of TAFE (DMIT) information technology department (Ruiz et al. 2001) and they found innovative solutions. The preferred DMIT IT model was for work-based assessment and thus they have a requirement for a mandatory industry placement for each IT qualification under the training package. The industry placement ranges from two weeks at Certificate II level to eight weeks at diploma level and enables students to be assessed in a realistic work environment. In particular, DMIT has been able to provide workplace assessment for 150–200 Certificate III in Information Technology students in the fields of hardware, networks, operating systems, applications and communication-related competencies.

DMIT IT has selected a well-established business partner in the recruitment and selection industry, Speakman and Associates and their subsidiary Select Staff Pty Ltd, and contracted them to find suitable work placements for their IT and administrative studies students. It has been a challenge for Select Staff to find 120–250 work placements for IT students each semester—'a lot of work, a lot of matching and a lot of selling!'.

As placing people in employment is the business partner's main business, it has its own clients and a reason for expanding contacts with more employers. It also has the company's reputation to uphold. Therefore, the industry partner conducts interviews with the students before matching them with employers' competency requirements. It also checks that employer's workplace and practices are suitable for the students, and provides students with professional presentation and support services.

The DMIT IT model integrates typical classroom-based delivery, structured support classes and a final year project which requires attendance in the industry. It follows the philosophies of the training package, in particular, the emphasis on competence in the workplace context, the use of holistic assessment strategies and the formation of industry partnerships.

In setting up the practice firm an advisory group firstly prepared a discussion paper. Then an implementation committee consisting of business students from Certificate III and IV met once a week. They had to think of everything that needed to be done to set up a business. They identified policy and procedures, defined management positions and roles, and set up costs and a budget. The management positions, such as human resources manager, require a commitment of 2.5 days a week and are filled from Certificate III

Administration Studies students. These managers are now responsible for the induction of new students into the practice firm, and, at the beginning of the semester, the rostering and timetabling of students into the practice firm.

The real management team consists of three DMIT staff, a lecturer/workplace assessor from IT and administration studies and the education manager who handles the real budget and set up costs.

Training package implementation

aDMIT Solutions—the practice firm

Establishment of an IT practice firm was part of the training package implementation strategy. While most practice firms are based in educational institutions it was decided early on that DMIT's IT focussed practice firm should be placed in real business premises. This enables students to truly feel as if they are attending a business and not another style of classroom delivery.

The DMIT IT business partner is also sponsoring the IT practice firm and has donated the office space for the first 12 months in its central business district (CBD) building, Speakman House. The CBD location of the practice firm, aDMIT Solutions, ensures its suitability for part-time students and others, who require access in the evenings during the week and on Saturday and Sunday. The practice firm provides work placement opportunity for IT students who, because of work or home commitments or other reasons, are unable to be placed in industry placements.

The DMIT practice firm is an IT contracting agency and provides placements for ten to twelve IT students, and five administration studies students, at any one time. It has its own network of computers, which is particularly useful for providing practice in IT networking skills.

The practice firm, aDMIT Solutions, is used for training and assessment of students from DMIT administration studies courses. Administration studies students are firstly introduced to work simulation in the practice firm before undertaking an industry work placement. While a major business focus of aDMIT Solutions is on information technology, it also focusses on administration, retail and local government. The business has five departments covering customer relations, administration support/human resources, IT services, contractors and finance.

Recuitment processes

The DMIT administration studies students must enter the practice firm through normal recruitment and selection processes. They answer the job advertisement, prepare a job application and are selected for interview. The staff from the business partner assist with the interview process so that it closely resembles current business practice. There are opportunities for part-time work, for example one day a week for the whole semester, which allow job-sharing arrangements, and block placements of 20 working days.

Induction processes

Each new member of the aDMIT Solutions team is firstly taken through an induction program by the aDMIT Solutions HR manager. This covers the general conditions of the contract, including communication when unable to perform responsibilities, equal employment opportunities and sexual harassment policies, and occupational health, safety and welfare responsibilities, including no smoking, no consumption of alcohol or drugs on client premises or working under the influence, and reporting any hazardous situations, unsafe actions or accidents. In addition, the on-site induction at each client site should include:

- orientation of facilities
- fire, evacuation and emergency procedures
- first aid facilities and officer
- ergonomics/layout of workstation and areas
- specific training/induction on equipment/machinery being used

Delivery of generic skills

Administration studies

In administration studies the practice firm is used for delivery of training, assessment, work placement and consolidation of skills. The administration studies students working in the practice firm must dress in a corporate manner (although not in the sponsor's uniform). The students follow Speakman's procedures for induction and occupational health and safety. They also follow Speakman's communication system. For example, telephone messages are logged and an email with the message is sent directly to the person. They wear identity badges and freely enter the offices of Speakman and Associates or Select Staff for training and assessment or to use rooms for meetings or to do photocopying. The sponsor provides training and tips for interviews, presentation and the preparation of résumés.

The students are able to do exercises, which show applications of skills and knowledge, while working in the practice firm. This assists with the transfer of skills and knowledge to the workplace. The DMI lecturers are facilitators and workplace assessors. They are not viewed as traditional classroom teachers. This means that the students are not shown how to do the exercise, as they would be in a classroom, but must ask for assistance if they require it. In general, the training will be on a one-to-one basis or to a small group. For example, the student may have to prepare a spreadsheet to meet certain requirements and within time constraints. They generally do a presentation for appraisal.

The practice firm allows students to do business nationally and internationally with up to 3000 other registered firms. Students also do some projects for the sponsor's company. Log books are maintained to facilitate continuity of jobs and mapping of activities, so that time management skills are also practised.

Students enrolled in Certificate II in Administration Studies can elect to achieve some of their competencies at the practice firm. It is highly recommended that students complete 20 days at the practice firm and receive credit for the unit CFAZ Practical Placement Certificate 2 in Public Administration.

A wide range of other competencies can be attained, consolidated or assessed within the practice firm environment including: Certificate Level II Telephone Operations, Business Correspondence, Reception Protocol, OHS&W in the Office, Office Role and Functions, Petty Cash, Financial Source Documents, Bank Deposits, Record Handling, Workplace/Team Effectiveness, Office Equipment Routine and Non-routine, Computer Operations and some other technical subjects. Other subjects can be assessed in the practice firm, such as TEC302 Design and Develop Documents, Reports and Worksheets. Since the students are rostered and rotated through the practice firm they learn to work with diversity and deal with conflict. If needed, the facilitator will step in and run a session on these topics. Other business skills such as communication with clients and colleagues, teamwork, delegation of tasks and risk-taking are learnt or consolidated.

Students undertaking Certificate III, IV or Diploma in Administration Studies are recommended to do 20 days of industry placement. The prerequisite is that they must have done 20 days in the practice firm or have recent work experience. This risk management ensures that every student who does work placement is 'job ready'. Select Staff conduct the interviews of students and find work placements for 20–30 administration studies students.

Information technology

In DMIT IT enrolment in work-placement was automatically recorded as part of enrolling in theory subjects called Enterprise Skills (C2) and Enterprise Skills (C4). Typically, the Enterprise Skills subjects contain the generic skills or 'soft skills' (for example, 'Apply occupational health and safety procedures', 'Communicate in the workplace', 'Work effectively in an information technology environment', 'Participate in a team', 'Apply problem-solving techniques to achieve organisational goals' and 'Receive and process oral and written communication').

Early classes provide the theory for enterprise-style units. However, the enterprise skills cannot be accredited until the industry placement is done. The enterprise also supplies technical support for assignments undertaken in the subjects.

These theory subjects ensure students gain the underpinning skills and knowledge to enable them to perform the tasks in the workplace context. They concentrate on the 'what' and 'why' aspects and verify that students have achieved the required level of knowledge and skill by using typical assessment tools, such as case studies and role plays. These assessment instruments follow a fictitious business scenario that match that used by other IT technical subjects, such as 'application packages' and 'systems maintenance'.

The industry placement then concentrates on gathering evidence that students can then apply the 'what' and 'why' theory in a workplace context. Businesses are vetted to ensure appropriate occupational health and safety procedures, IT infrastructure and best practice processes. The assessment in the workplace also requires evidence gathering using traineeship-type tools in the form of workplace reports, site visits by qualified workplace assessors and student log books. Although the focus of the assessment would be on enterprise competencies, the tools would also allow students to record the technical areas applied during their placement.

To avoid placing students who were not ready to perform in a workplace context, processes consisting of interviews and formative assessment tools were developed. DMIT IT department did not have the resources or industry contacts to handle the processes required for work placements and so an appropriate business partner was found.

The business partner staff spend a lot of time liaising with employers, preparing letters of introduction for the students and insurance cover, providing induction for the students and following up to check that the log book is being competed by employers when competencies have been assessed. If the student has insufficient confidence or language skills the placement staff will recommend that the student go to the practice firm first and they may later do two weeks in an industry placement. In some cases employers require extra 'selling' or encouragement to take on an IT student for four weeks as they have a negative experience of work experience students.

Articulation with other tertiary education

DMIT has a partnership with Ballarat University for the IT Diploma. There are also credit transfer arrangements from DMIT Administration Studies courses, especially in accounting, marketing and human resources, to degrees at Flinders University.

Evaluating the training package

Advantages

The advantages for DMIT of the work-based assessment and work placements under the training package for administration studies and information technology students are the ability to:

- provide more flexibility and different learning strategies, for example, specific training for the skill gaps and to cater for different learning styles through the practice firm
- allow administration studies students to do business nationally and internationally with up to 3000 other registered practice firms
- ensure that students are 'job ready' when they complete their course. IT students who are not yet 'job ready' or are unable to undertake industry placements, can build confidence and consolidate skills through the practice firm
- ensure that students exit with workplace experience—no matter at what level they exit. Part-time students with family or employment commitments can access the practice firm in the evenings or on weekends
- enable students to gain industry contacts and to use their work placement as experience in résumés, when seeking employment
- result in students being offered employment with their host employers
- provide information on the strengths and gaps of the training programs at DMIT from the host employers
- promote DMIT in the community to attract more students. It also attracts more employers to hire DMIT graduates

Disadvantages

IT students initially were concerned at having to pay (about $300) to work for an employer and were fearful of the program being 'like work experience at school'. However, early anecdotal evidence suggested that they appreciate the structured, IT-focussed nature of the placement, and many had gained employment with their host employer. Some employers were initially not happy with the attitude of the student and this led to an improved screening process.

IT students are assessed on their work placement performance and so the placement is a compulsory part of the course. However, according to the placement staff some IT students showed lack of dedication and 'no real-world focus' as they seem to expect they would get their 'perfect' employer.

The business partner staff involved in placing the students noted that some administration studies students do not understand the value of the work placement. She illustrated this by noting that although one student was very happy with her host employer and the workplace, the student had walked out after three days because it was her opinion that she was not learning anything new. The placement staff believed that students must also prepare for their work placement and understand that they are there to apply their skills, especially time management and how to work with colleagues or consult other members of the team (that is, generic skills not just technical skills).

Key points

DMIT's experience in implementing the national training packages highlights several key points, which they believe are essential to its success.

1 DMIT IT and administration studies staff support training and assessment in generic and technical skills being integrated at all levels. Holistic assessment in the workplace context is compulsory for IT students to obtain national qualifications. Administration studies students are strongly recommended to undertake 20 days training and assessment in the practice firm or to consolidate their skills in the workplace context at Certificate II level and also to undertake an industry placement in Certificate III, IV and Diploma levels.

2 The business partnership for work placements and sponsorship of the practice firm, including planning, screening of employers and workplaces, matching of students to employers, monitoring and support, has been vital to deliver the work-based assessment of competence under the training packages.

3 The practice firm allows students to do business nationally and internationally with up to 3000 other registered firms and ensures students are ready for industry work placements.

4 Assessment and training are promoted as part of normal workplace activity to reflect workplace performances. On-site visits by the qualified workplace assessor are an integral part of the program.

5 The recruitment practice for industry work placement and the practice firm places emphasis on appearance, personality, and attitudes. Work ethic, customer courtesy, teamwork and appropriate language skills are essential.

6 Work placements promote DMIT to attract more students and also attract more employers for DMIT graduates.

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Sydney Opera House Trust – entertainment

Background

The Sydney Opera House Trust has been chosen for inclusion as a case study because it provides an example of a focus on recognition of current competencies (RCC), or of prior learning (RPL), for existing staff. It is also an example for providing formal qualifications under a training package in an industry sector, where previously there were few formal qualifications. The Sydney Opera House is one of the biggest employers in the performing arts sector. It started working with the Entertainment Industry training package (EITP) in late 1999.

Before the implementation of training packages, there were very few vocational qualifications in this industry sector, particularly for theatre technical and front-of-house skills. TAFE and other providers have provided some arts industry training in some areas such as sound production, music industry skills and film and television production techniques. Some specialist courses were also available such as the Diploma in Theatre Costume Manufacturing at Sydney TAFE and courses at the National Institute of Dramatic Art (NIDA).

Sydney Opera House management believed that entry-level training should be affordable and that this could be achieved through flexible delivery in combination with enterprise-based training. Sydney Opera House management also recognised that employees in the entertainment industry, who were engaged in areas such as lighting, sound production, audiovisual and front-of-house services, had highly developed levels of competence, but limited options to gain formal qualifications. One Sydney Opera House staff member had been working for 30 years and under the EITP has now acquired a first qualification.

Before the 1990s there were no formal apprenticeships or traineeships for working in the theatre; you were born into the craft or gained entry through voluntary work or amateur theatre experience.

Recruitment processes

At present Sydney Opera House front-of-house potential applicants are told that the Certificate II in Entertainment is a desirable qualification or they must be willing to work towards Certificate II in Front-of-House. It is anticipated that increasingly the competencies required in Certificate II in Entertainment will become the recruitment criteria. Currently, the main selection criteria are personality, interest and people skills. This is reflected by some exposure to theatre, customer service, teamwork and effective communication and language skills. For trainees in the theatre technical areas, listening and numeracy skills are also essential.

Training practices

Prior to the introduction of the EITP the Sydney Opera House provided most staff training in-house through induction training and on-the-job training.

Training package implementation

Infrastructure

The Sydney Opera House gained status as a registered training organisation to deliver and assess the full scope of EITP qualifications. The initial focus was for existing staff to provide evidence of competence against the national competency standards through recognition of current competencies (RCC) or recognition of prior learning (RPL) processes. The People and Learning Department prepared a detailed implementation plan and adopted a team-based approach with a staff member responsible for training package implementation as a project.

The Sydney Opera House wanted senior technicians or supervisors to gain skills as workplace assessors. Therefore, these staff were the first people to be put through the RCC process. Once senior technicians were qualified in at least Certificate IV level qualification from the EITP themselves, they undertook the Certificate IV in Workplace Training and Assessment (WPTA). They were then used to assess their own staff working in areas such as lighting, sound, audiovisual and front of house.

Senior management at Sydney Opera House support the implementation of the training package. They have a commitment to training Aboriginal and Torres Strait Islander (ATSI) people for the industry. In 2001 the Sydney Opera House provided four traineeships under the ATSI program in sound, staging and lighting technical skills areas.

There is currently no group training company for this arts area, although many enterprises in the entertainment industry are small operations, which may be able to host trainees or apprentices at different times. Sydney Opera House staff have looked outward and engaged in RCC of skilled workers in a range of external enterprises within the entertainment industry. For example, Sydney Opera House staff have completed the RCC process and provided EITP qualifications to staff at both the Hunter School of Performing Arts and the Civic Theatre in Newcastle. This has enabled a VET-in-Schools program to be initiated in the area where training is delivered and assessed on the premises of the most significant employer in the region, Civic Theatre Newcastle, to the enterprise standard (Meyers et al. 2001).

Many enterprises in the entertainment industry are small operations and do not have the full range of equipment and operations to satisfy all the areas of competency listed in EITP. Sydney Opera House employs a flexible approach whereby competencies from other areas can be incorporated to achieve enough points for a qualification to be awarded.

Induction processes

There are three theatre technical areas—lighting, sound and staging. For casual technicians there is induction training which includes orientation to the theatre complex, first aid, occupational, health and safety and theatre terminology. Front-of-house staff and trainees undertake one week of induction training which includes evacuation procedures, disability awareness, first aid, customer service and venue awareness. They also have a 'buddy' system where new staff work alongside an experienced colleague, who can answer their questions and advise them, for the first three shifts.

Articulation with other tertiary education

It is early days still in the implementation of the EITP. However, already there are some VET-in-School programs, such as Hunter School of Performing Arts in Newcastle, in which Sydney Opera House has been instrumental.

Sydney Opera House anticipates that in the future more formal links will be established to articulate the EITP qualifications to other tertiary courses, such as the National Institute for Dramatic Arts (NIDA) courses.

Delivering generic skills

The most important generic skills such as teamwork and communication skills are developed on the job. Other key competencies, such as 'Collecting, organising and managing information', 'Problem-solving', 'Using technology' and 'Planning and organising activities', are also important at every level.

The four ATSI trainees rotated through the three technical areas—lighting, sound and staging, focussing on the competencies for Certificate II and III in Entertainment.

Most training takes place on the job by 'shadowing' the experienced staff and using them as a mentor or coach. Off-the-job training is used to teach theory and to demonstrate work practices (for example, rig lighting or set up a sound system).

Evaluating the training package

Advantages

The advantages of the Entertainment Industry training package for the Sydney Opera House are the ability to:

- depend on nationally consistent competency standards
- customise training to meet the needs of the enterprise and individuals
- provide recognition of current competencies (RCC) for existing or experienced workers
- provide incentive for existing staff to continue learning and gain further qualifications
- allow workers to move within the industry as their training and qualifications are transferable
- up-skill the industry as more staff, volunteers and students are encouraged to gain recognition for existing skills and gain new skills

Disadvantages

The Entertainment Industry training package is currently being reviewed. It is assumed that the issues noted by Sydney Opera House People and Learning Department staff will be addressed in that process. These issues related to the large difference in requirements for Certificate II and Certificate III AQF levels in the EITP.

The Sydney Opera House staff also felt that a Certificate IV technician has difficulty advancing to the next AQF level at the Sydney Opera House, because of their specialist role. The EITP Diploma appears to be skewed to generic management skills rather than to higher theatre technical skills. The specialist technician at the Sydney Opera House has relatively few opportunities to do such management tasks. In addition, staff believe that to manage in this area, a person needs to have at least one specialist technical skill. Hence, they felt that the EITP Diploma should be more technician-based, as units for managers can be found in other training packages, such as the Business Services training package.

It may be that articulation into higher education is required to satisfy the need for higher theatre technician qualifications (for example, the design course might articulate with NIDA's Set Designers course). In addition, shorter specialist courses are required at the post-graduate level.

Key points

The Sydney Opera House's experience of implementing the National Entertainment Industry training package highlights several key points, which they believe are essential to its success.

1 The Sydney Opera House strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes that the Sydney Opera House has sought, especially with regard to achieving consistent performance.

3 A qualified workplace trainer/assessor is regarded as an integral part of the infrastructure for the program, and all managers are committed to the training and assessment of staff.

4 Assessment and training are promoted as part of normal workplace activity to reflect and improve workplace performances.

5 The Sydney Opera House's general recruitment practice places emphasis on customer service, teamwork, communication skills, exposure to the theatre experience, workplace health and safety and equal employment opportunities.

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Thiess Pty Ltd – learning teams in civil construction

Background

Thiess Contractors Pty Ltd (Theiss) was chosen as a case study for its particular learning culture in which employees are encouraged to access training, in particular, while working on civil construction projects. Thiess has taken the lead in training workers using the Civil Construction training package. This company is the civil construction arm of a large Australian mining and construction company involved in national and international projects. It has traditionally had a considerable commitment to training and human resource development. In order to enhance the company's capacity to successfully complete projects there was a well-organised competency development and appraisal system. In recent years the company has recognised the importance of the capability of its workforce in relation to its competitiveness in a global environment.

Thiess values statement – 'Make a difference'

We aspire to be the leading service provider in each area of our diverse operations, supported by a culture of teamwork, innovation, integrity and performance.

We are committed to making a positive difference by:

- providing a safe workplace
- realising our clients' vision
- fulfilling our people's aspiration
- sustaining our environment
- communicating openly and honestly
- respecting the values of others
- maximising stakeholder value
- leading industry standards
- supporting the community

A strong commitment by Thiess to developing its people, long-term relationships with its clients and providing innovative, flexible project solutions supports these core values.

Recruitment processes

Thiess has established formal written policies outlining its core values, code of ethics and quality assurance processes. There are also policies, which provide guidelines for action on environmental issues, health and safety, trade practices, community relations and equal employment opportunity. These policies provide guidance to company recruitment processes. Workers are selected and promoted, not only on the basis of their technical competence but also on their individual performance, commitment, loyalty and compliance with company values. In particular, all workers must abide by the code of ethics.

Training practices

Thiess Human Resources is a registered training organisation (RTO) capable of delivering nationally accredited programs itself or in conjunction with other providers. Skills development is available in a diversity of delivery modes both on and off-site. To facilitate the corporate objective to develop and enhance the skills and knowledge of its people, it has developed a comprehensive training plan. This includes a series of matrices indicating the assessed competencies of each worker. Given that work in this industry is essentially project-based, workers who build up a portfolio of skills and evidence of competence will find it easier to move from project to project. At Thiess subcontracted workers are also offered training (that is, if their direct employers are prepared to pay for it).

Thiess aims to be a learning organisation (that is, one in which employees are continuously learning while at the same time scanning and responding to the internal and external environment as consistent with company values and ideologies). The company has established programs to encourage innovation, creativity and leadership by developing its people. For example, Thiess has established a strategic learning partnership with the University of Queensland. This allows recognition pathways for Thiess people into Australian Qualifications Framework qualifications, such as Diploma or Advanced Diploma in Project Management, and allows flexible delivery options for Thiess people Australia-wide.

Thiess code of ethics

Acting with integrity is fundamental to the way we operate. This code of ethics outlines the principles and standards which all employees are expected to comply with in the performance of their duties.

In conducting our business, we will:

- communicate this code of ethics to all employees and other stakeholders as appropriate
- comply with all applicable laws, regulations and statutory obligations in the countries in which we operate
- act honestly and with integrity in all areas of our business dealings
- respect the values of others
- accept responsibility and be accountable for our actions
- avoid situations resulting in conflict of interest, bribery or the use of inducements to secure business
- use Thiess' assets only for company purposes
- periodically review and revise this code of ethics to maintain its relevance

Actively applying the principles of this code of ethics is integral to the ongoing success of our business. It is the responsibility of each individual to maintain the highest standards of ethical behaviour.

Thiess recognised that construction projects now rarely lasted longer than a couple of years. Yet the rate of change, advances in new technology and knowledge, and demand for quality, cost efficiencies, career path development, equality, safety and higher productivity had grown at a hectic pace. To be successful the company needed to be a learning organisation where the vital unit was the 'learning team'. This required a shift from the traditional top-down control philosophy where 'thinking' was done by managers and 'doing' was carried out by workers. The shift required a rethinking of the systems and processes for planning, organising, co-ordinating and implementation work within the project. The company had realised that the bottom line was getting the job done right first time and safely, thus reducing costs.

As the nature of work changes the manager becomes a team coach, providing leadership, encouraging and empowering workers in order to develop or harness their knowledge, skills and creativity. At Thiess, each project team member is encouraged to become a mentor. In order to support this new role, managers and supervisors are undertaking the Frontline Management Initiative Program.

Fundamental to advancing change within the company is the promotion of dialogue. At Thiess it was important that the workers' experiences and opinions were valued. Workers were encouraged to question and problem-solve, in the knowledge that they would receive supportive feedback. In order to participate in the company 'problem-solving' through the 'learning teams', workers need a range of enabling or generic skills such as communication, teamwork, literacy and numeracy (for example, they must know what they are agreeing to do when they sign the work activity briefing sheet). The 'learning team' approach with on-site trainers encourages the workers to enhance generic skills along with technical competencies.

Worker empowerment allows worker innovation and participation in decision making. Increasingly the responsibility for compliance with industry standards, workplace health and safety requirements and environmental legislation is placed on workers.

Ford (1991), who was one of the early change agents in the construction industry, advocates a holistic approach to work that sees learning activities extending into, and being a vital part of, all activities in the project. To have a common purpose and a shared vision, team members need to understand how to

complement each other's skills, knowledge and efforts. To do this they must exchange ideas or opinions and collaborate in the solving of problems.

With the support of the general manager, Thiess has attempted to go beyond ensuring competence (knowledge and skills) of its workforce to developing capability. Thiess management agreed with Stephenson (1993) that capable people are more likely to be creative, use their competencies in novel as well as familiar circumstances, know how to learn, work well in teams and have strong self-efficacy.

Empowering workers

During the last decade Thiess has been experimenting with leading edge communication and staff development processes. The first use of these processes began with the Junee Gaol Project, in New South Wales in 1991 (Davis & Hase 2001). Since the area had high unemployment, project managers sought to employ as many local residents, including rural workers, railway trades and non-trades people, as possible and to involve these workers in 'workplace teams'. These teams were given the tasks of work scheduling, skill development of its people and accounting for the activities assigned to them.

This inclusive process was further refined and developed in other projects, such as the 1995 Gateway Motorway Extension Project in Queensland. The process was then called a work activity briefing (Bulmer et al. 1996) and had a more inclusive approach for the work activity of participants, because the engineering personnel and the management or supervisory staff provided additional support. In addition to achieving the construction objectives, Thiess had a number of other training objectives. These were to improve skill levels, safety, quality and efficiency, to promote a team-based approach, to align the site training to the national industry competency standards, and to provide development for project personnel (or future project managers).

The learning approach used was grounded in the principles of adult learning theory, which holds that adults learn best, when a group is encouraged to share their experiences, through open-ended, problem-centred learning approaches, and integrating new learning with existing knowledge and experience.

In the evaluation of the Queensland project, the work activity briefing process was regarded by those participating, as pivotal to the delivery of a project that has exceeded the expectations of clients in the areas of quality, time saving, cost reduction, industrial harmony and safety (Bulmer et al. 1996).

The work activity briefing process

The work activity briefing (WAB) process involves all participants in an activity including engineers, supervisors, specialist support personnel, workers and in some cases suppliers and subcontractors. The aim of the activity is to identify and apply the best solution to a problem or opportunity with the project context. The process brings together the thoughts, experience and knowledge of all involved in developing new procedures and processes, and communicating solutions for the activities to be undertaken within the project. All known information is recorded on a work activity briefing sheet.

Typically, engineering staff and/or technical staff provide the known engineering-specific information, and the project and field management staff will provide the resource and co-ordination knowledge. These team members will then meet with everyone else involved in the activity to develop the 'best possible' solution. At the end of the process, an approach is agreed upon (each member signs off that they agree), set down in the work activity briefing sheet and accompanying documents, and then implemented as agreed. The WAB document becomes a plan which identifies the activities, the parties involved, the actions required by them and roles and responsibilities. It might also list the resources required, dates and times of actions, and organisational information.

The development and management of people traditionally depended on a top-down approach. Today increased dialogue between the engineers and field staff shifts the power relationship. It allows the practitioner to gain underpinning knowledge to solve the problems and allows the engineers to gain new knowledge from the practitioner's experience. Thus, perceptions of each other are changed and trust between group members develops.

The managers and supervisors will exercise power in co-ordinating the arrival of the materials; the workers will exercise power through the application of their skills without having to wait for instructions and directions. Indeed the parties regulate themselves within the terms of the plan and project context.

Initially some workers found the WAB process to be threatening; however, confidence increased as they realised that they were allowed to provide suggestions. By rotating the chair for the WAB meetings it was easy to identify natural leaders. In addition, this also helped the development of good relationships between group members. This relationship then greatly enhanced the learning process.

This collaborative approach to problem-solving meant that the highest possible levels of ownership were developed in participants and that everyone wanted to make it work because they saw it as their solution. Empowerment derived from increased responsibility for and participation in decision-making also increased commitment and self-esteem. Team members worked in harmony, met or exceeded client's needs, and wanted to stay working with this company. This approach made commercial sense.

The company has conducted evaluations of the WAB process by interviewing work teams and individuals. Comments included:

- 'everyone gets a chance to put their opinions forward'
- 'being able to see the big picture makes it easier'
- 'the process helps to keep up high production, particularly where there is a lot of pressure'
- 'helped to change views and ideas of the 'old' hands'
- 'good way to pass on tips to the 'young' hands' (Bulmer et al. p.14)

In addition, the project manager identified numerous quantitative improvements in the areas of quality, safety, cost reduction and productivity.

Continuous improvement

A self-managing team has a range of advantages based on access to a pool of experience and knowledge resident with the team. It has the ability to rapidly inform and develop knowledge within the group and increase the level of involvement and commitment on the part of group members.

Depending on the duration or complexity of the task, a series of work activity reviews are also part of the process. These are essential to ensure original plans and methodologies are appropriate and efficient. They provide the mechanism for continuous improvement and adoption of better practice.

An extension of the work activity briefing has been the establishment of pre-start briefings in which teams meet at the start of the shift and discuss issues. Initially for work safety the briefings soon involved discussing the day's activities and what could be learned from events of the previous day. Interviews with participants (Hase et al. 1998) revealed a high level of empowerment, involvement and sense of commitment to the work team. It was clear that learning was taking place for participants.

Fundamental to process is dialogue at all stages of the project. This is illustrated by the workplace activities as summarised on page 134.

Training and development implementation

The staff training and development goals of Thiess are to:

- help individuals be the best they can be in their role
- enable the rapid transfer and development of knowledge
- become a learning organisation

Central to their training strategy is the Thiess Skills Development Program. This provides a diversity of delivery modes ensuring all employees have the opportunity to participate in training and development, whether it be attending short courses, participating in on-the-job training or undertaking distance education. It incorporates courses which provide knowledge and skills specific to Thiess policies and procedures and presented by Thiess trainers. Short courses may also be delivered by professional presenters who have the benefit of academic qualifications and industry experience. In addition, the Thiess Frontline Manager Program provides management education via self-paced distance education methods.

As an RTO, Thiess has qualified workplace assessors, who are also able to assess other workers, such as sub-contractors, against the national competency standards. Each project worksite has a training officer. However, Thiess will also contract other VET providers to assess its employees (for example, Kangaroo Point TAFE

staff assessed employees for the Frontline Management Initiative Program). Thiess also has an agreement with the University of Queensland, which encourages higher education participation by employees.

Summary of workplace activities

Activity	Timing	Personnel	Tasks
Inductions	When hiring new employees	Welfare, health & safety (OHS&W) officer	Induction to company, OHS&W procedures
Work activity briefing (WAB)	Commencement of job	Whole crew	Site plans, training needs, equipment
Pre-start meetings	Every morning (sometimes evening)	Leading hand to whole crew	Objectives for the day, problem-solving, discussion of previous day
Pre-start checklists	Start of shift	Individual	Equipment checks safety checks
Task specific briefings	Start of shift	Individual	Task objectives, problem-solving
Job safety analyses (JSA)	Commencement of new job or task	Whole crew	Analysis of safety procedures, environmental issues
Toolbox meetings	Once a fortnight	Leading hand or foreman to crew	Job issues, safety issues

Source: Adapted from Searle 2001

Short burst training

Where specific skills need to be developed during the course of the construction project, Thiess structures the training into three stages: short burst training, coaching/mentoring and the workplace activity briefing. Short burst training provides initial skill or knowledge improvement or development for employees who have been identified as needing immediate improvement or development. This activity generally lasts between 30–45 minutes and underpins the activities of coaching, mentoring and work activity briefing.

The topics for short burst training may be commercially available programs, such as Scaffolding or First Aid, or they may be specifically designed to support the project. A variety of presentation methodologies are used, such as face-to-face teaching, group discussions, role plays and video.

Coaching and mentoring

Coaching and mentoring activities by work colleagues or specialists provide individuals with broad and specific skills and knowledge development whilst engaged in work. The approaches employed vary from one-to-one development conducted on-the-job by a supervisor or specialist, to tips or comments passed on through team meetings. This type of training is very successful because it is delivered as needed by a coach or mentor with established credibility and who is also a member of the team.

This approach confirms or broadens the skills and knowledge developed in short burst training or brought to the project from prior learning or development on other projects and training environments. It is also supported by industry-accredited assessors who provide diagnostic, formative and summative assessments for project employees.

Frontline Management Initiative (FMI) Program

Following the implementation of the work activity briefings, a group of supervisors working for Thiess expressed a need for further training to develop their managerial skills. The Frontline Management Initiative (FMI) Program was selected as appropriate to their needs. Kangaroo Point TAFE was engaged to provide the assessment processes so that formal credit could be provided.

Three sessions were used to discuss the program and to identify in detail the competency standards required. Then each supervisor was assessed against the competencies required for the diploma level. While credit was given for some competencies, it was clear that the underpinning knowledge supporting some other competencies was missing. The decision was therefore made to enhance those skills that were not complete and to provide training in those areas where knowledge and skills were deficient.

Supervisors decided on an after-hours workshop approach in which supervisors met for two hours, usually on a Monday night, with the Thiess training manager and the site training officer. These individuals used a coaching or facilitating role to urge, inform and provoke the supervisors to explore suggested reference materials and their own past experiences.

The supervisors wanted to finish the FMI program by the end of the project—eight months away. They were given control over sequencing subject choice and the workshop agenda. In this way they 'owned' the training process. The training manager, however, insisted on starting the program by exploring the concept of 'leadership' as this was fundamental to all subjects in the course. The debate about the differences between the functions of leadership and management continued through all discussions and assignments. All assignments were practical in nature and based on the work they were actually doing on-site. In each assignment the information from the course was to be used to improve the project, its processes or the workforce. They were able to see the results immediately.

Each week a new subject area was explored and the next subject chosen for the following week. Each week there was also a general reporting back process in which each supervisor would share information on how the assignment had gone during the previous week.

Towards the end of the project the supervisors realised that time available would not be sufficient to complete the program. They determined that they would devote additional time to the workshops following negotiation with the facilitators. The facilitators agreed only on the basis that the supervisors would have to negotiate with the project manager for an evening meal. The skill of the negotiator was evaluated by the quality of the meal. Everyone completed the training and the facilitators learnt a lot too.

The original assessor from Kangaroo Point TAFE was used to re-assess each supervisor. Each supervisor was found to be competent and all supervisors were presented with a diploma at a graduation ceremony.

On review the supervisors were strong in praise for the processes of learning they had experienced, and of the skills and knowledge they had obtained. They were also pleased with the positive effects their learning had had on production, safety and work relations with the workforce and subcontractors. The supervisors commented that although they had believed that they were acting as a team prior to the commencement of the FMI program, it was their experiences during the program that had converted them into a team working to support and assist each other in the completion of the project.

Summary of generic competencies

Teamwork, communication, planning and organising activities are crucial to working in the construction industry (Hager et al. 2001). However, problem-solving, collecting, analysing and organising information, and using mathematical ideas and techniques, technology and cultural understanding are also essential. It is also clear from the Thiess learning team approach that employees at all levels need to use all these generic skills.

The emphasis on environmental and OHS&W issues has been a strong driver of training in this industry. Hence environment and OHS&W awareness are also essential generic skills.

Leadership training was fundamental for supervisors who requested further training and FMI accreditation. The learning team approach had made learning an integral part of day-to-day work and the challenge for supervisors and managers was to find ways to harness that learning for quality outcomes.

However, the effective transfer of generic competencies and skills between contexts rests on the capacity of each workplace to utilise and develop the competencies and skills of its employees. Those people, who worked as part of a learning team on one project, wanted to extend their learning when assigned to a subsequent project. These learning arrangements encouraged the development of a lifelong learning approach to knowledge and skills acquisition and fostered increased company loyalty.

Evaluating the training package

Advantages

The advantages of the Civil Construction training package (and Frontline Management Initiative) for Thiess Pty Ltd related to the company's ability to:

- depend on nationally consistent competency standards to skill or up-skill staff
- customise training to meet the needs of the enterprise, project and individuals
- provide recognition of current competencies (RCC) for existing or experienced staff
- provide incentive for workers to continue learning and support lifelong learning for all staff
- up-skill the industry as more workers are encouraged to gain recognition for existing skills and gain new skills

Disadvantages

No particular disadvantages were identified. Although the learning teams approach required the extra time initially to develop the process, it had resulted in exceeding the expectations of the clients in the completion of the projects.

Key points

Theiss' experience in implementing the national Civil Construction training package, and Frontline Management Initiative, highlights several key points. They believe that these are essential to its success.

1 Theiss strongly supports training and assessment in generic and technical skills being integrated at all levels.

2 Theiss use the national industry competency standards to skill and up-skill workers.

3 The infrastructure for planning, delivery, assessment, monitoring and support has been vital to deliver the outcomes Theiss has sought, especially in terms of consistent performance and competency development.

4 A training plan or skills matrix from the standards in the Civil Construction training package, indicates the assessed competencies for each worker in the company.

5 A qualified site workplace trainer/assessor is regarded as an integral part of the infrastructure for the program, and all supervisors/managers are committed to the learning process and involved in the learning teams.

6 Learning and appraisal are promoted as part of normal workplace activity to reflect and improve workplace performances.

7 Theiss is a learning organisation, which encourages innovation, creativity and leadership by developing its people and supports lifelong learning for all staff.

8 Encouraging workers to continuing to learn for their own benefit, as well as for the team/project, has improved overall performance, retention of staff and skills in the industry.

9 Articulation into higher education courses provides goals for individual employees and enhances the organisation with external ideas, mentors and networks.

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Retail

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